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HERE at Crum-Brainard, we're keeping pace with changing oil industry conditions by devoting more and more of our production capacity to rock bits. Not only are we manufacturing more bits, but we are making them to operators' individual requirements... The eight basic types shown here* give a full range selection to cover all general and many unusual formation conditions, however some localities present drilling conditions peculiar to themselves. When this condition prevails the operator may conceive of and wish to try some special type of cutter made to his own conception. Send us a description of your formations and suggestions of the desired rock bit characteristics and we'll gladly make a bit to meet your specific needs. Buy your bits on performance!

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Type "OSS" for soft, sticky formations.

Type "OS" for shale and medium sand rock

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Type "O" for ordinary surface formations

Type "CO" for abrasive limes and shales

Type "C" for hard and abrasive formations

Type "CF" for extremely hard formations

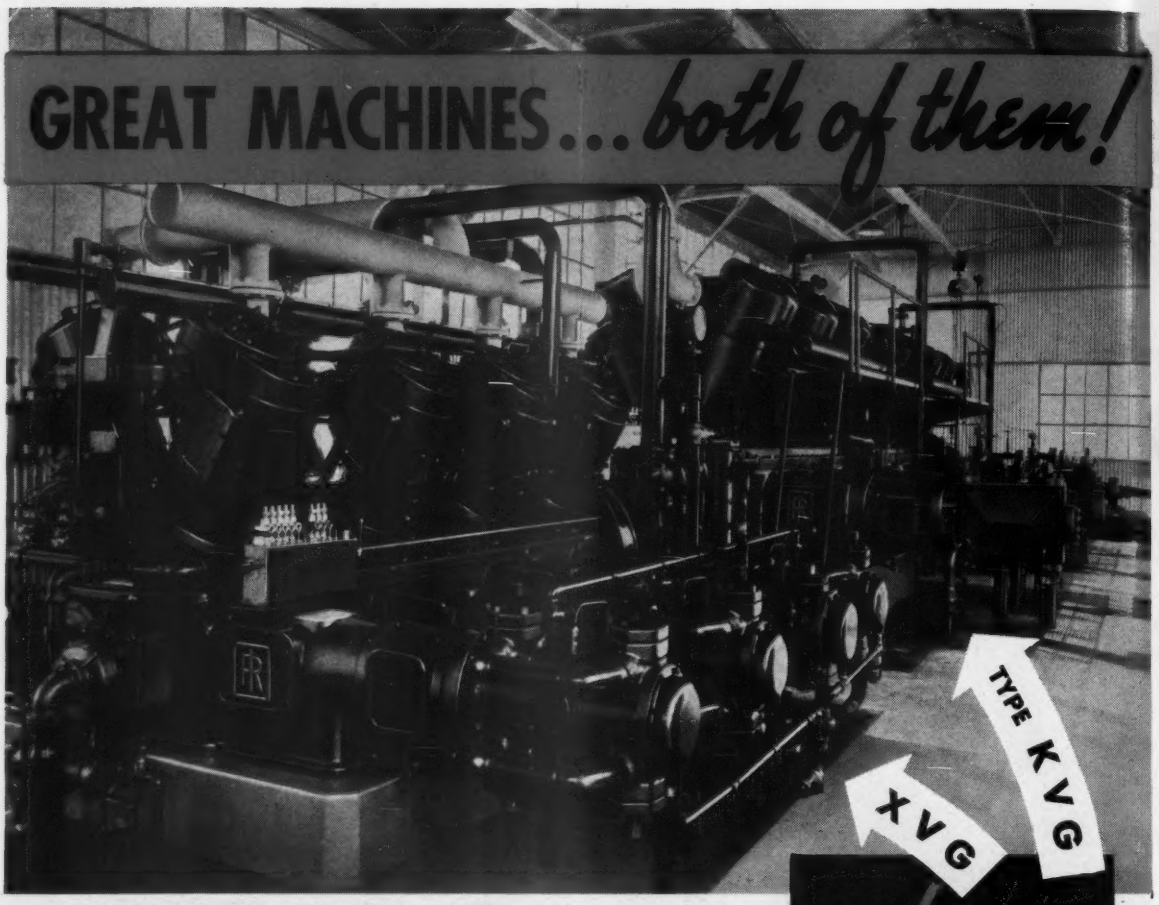
Type "OWS" for medium hard shales and sandy shale of softer layers

Crum-Brainard
317 MAGNOLIA AVENUE * WHITTIER, CALIFORNIA
RANCH WAREHOUSES

Buy your bits on performance

TWICE MONTHLY • FIRST ISSUE • AUGUST, 1944

GREAT MACHINES... *both of them!*



An 8-cylinder 300-hp XVG, and two 6-cylinder 600-hp KVG compressors in repressuring service.

When introduced twelve years ago, the XVG was *great* because it set new standards in gas-engine-driven compressors for oilfield and refinery service. Its V-angle, multi-cylinder design resulted in astonishing savings in the costs of installation, relocation and maintenance. It also established a new high in over-all economy of operation.

The XVG is even *greater* today. During these twelve years, it has been used in all types of applications, and the experience gained has naturally resulted in many improvements. In all parts of the world the XVG has proved the soundness of the V-angle design and 4-cycle simplicity... and the ability to operate continuously under full load for weeks and months without shutdown. It is still *the* compressor in the 75- to 300-horsepower size range.

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CALIFORNIA OIL WORLD

PUBLISHED TWICE A MONTH
FOR TIMELY, COMPLETE
CALIFORNIA OIL NEWS COVERAGE

• FIRST ISSUE
AUGUST, 1944
VOL. 37 • NO. 15
WHOLE NO. 1662

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V. C. MONROE—President and Editor •
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KINZIE MILLER—Vice President

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August 15, 1944
Telephone Number TUcker 2571

Editorial

Prospects of tideland oil development along the Southern California coast appear much brighter as a result of a recent exchange of correspondence between the Petroleum Administration for War and the State Lands Commission, and subsequent public announcement by Lieutenant Governor Frederick Houser (a member of the commission) that the State has asked for bids on directional drilling into the tidelands in Santa Barbara County.

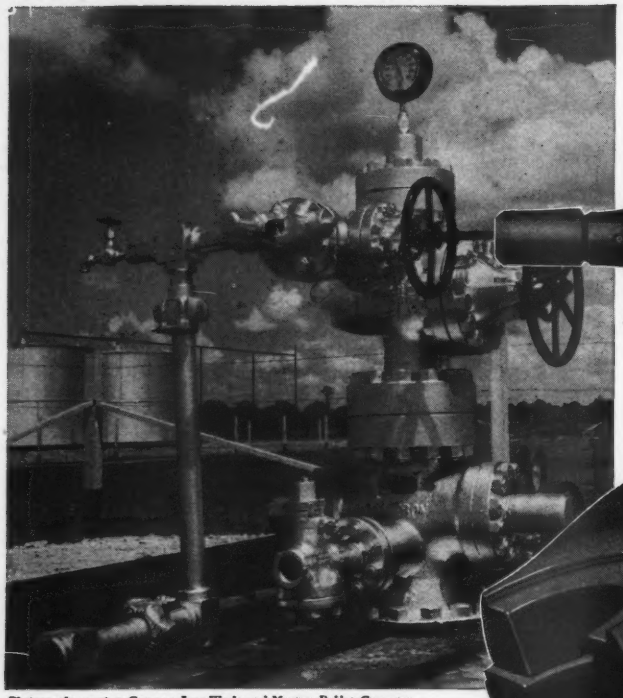
The State's move is commendable in view of the critical oil supply situation on the Pacific Coast. How to accelerate California's slowly rising production has been a major worry of the State's oil industry for many months. The lands commission has been well aware of the situation and while its attitude has been sympathetic toward the industry's problem there was little it could do since the California law had been interpreted as prohibiting drilling into the tidelands except where the State's oil was being drained by a well or wells on private property adjacent to the tidelands. A recent ruling by the State attorney general is highly significant in this connection, and puts a new complexion on the possibility of immediate off-shore oil development.

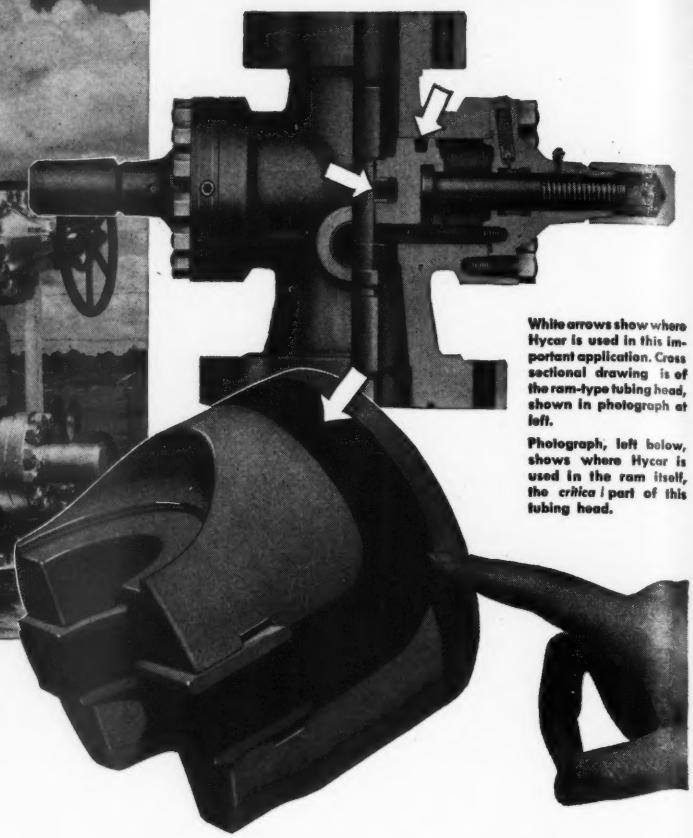
The attorney general declares that if there is a **threat** of drainage where an exploratory well is being drilled on private property adjacent to the tidelands the State may call for bids for slant drilling into the tidelands at this location to prevent the threatened drainage. Previously, as pointed out above, it was considered necessary to show that drainage actually was occurring before the State could act. As now interpreted it should be possible to explore certain off-shore locations under the law as it stands today. That such is the case is evident from the fact that the State has already asked for bids on drilling into the tidelands in Santa Barbara County where an exploratory well is being drilled on adjacent private property. The threat of drainage exists. Said Lieutenant Governor Houser: "The Commission has been informed that this well will undoubtedly drain the State pool unless action is taken to protect the State's property.

All of this is very encouraging from the standpoint of the military for as Deputy Petroleum Administrator Ralph K. Davies stated in his recent letter to the lands commission: "The prospective demands for oil to wage the war in the Pacific are necessarily so enormous that even the development of the Elk Hills, coupled with the sum total of all production which we may reasonably expect from known fields in California, still leaves us short of adequate supplies to sustain our military forces without drastic and increasingly severe civilian rationing."

While it now appears that everything possible will be done to permit tideland oil development in California under existing statutes, there remains the necessity for amending the law before an expanded program can be pushed to capacity. There have been two special sessions of the State legislature in the last year at which this might have been done, but for some reason, probably because he did not consider it politically expedient, the Governor did not place the tidelands matter on the agenda. Unless another special session is called in the meantime, no amendment of the present law may be expected before the next regular session of the legislature which convenes next January.

Nothing can be seen in recent developments as indicating that the Federal Government intends to reintroduce the question of State vs. Federal sovereignty over the tidelands. Deputy Petroleum Administrator Davies told this journal's Washington representative that PAW certainly has "no designs" that would lead to Government interference of any sort. The Department of Justice seemingly lost interest in the matter months ago and it is to be hoped that the controversy has been buried, permanently.





White arrows show where Hycar is used in this important application. Cross sectional drawing is of the ram-type tubing head, shown in photograph at left.

Photograph, left below, shows where Hycar is used in the ram itself, the *critical* part of this tubing head.

Photographs courtesy Cameron Iron Works and Murray Rubber Company.

HYCAR CAN HANDLE CRITICAL JOBS

FROM the moment an oil well is completed, it is up to the seals in the tubing and casing heads to hold against oil and gas pressure, sometimes as high as 5,000 pounds per square inch. If the seals deteriorate and "leakage" results, expensive wild-well capping may be necessary.

To handle these critical jobs of leak-proof sealing, engineers of the Cameron Iron Works selected Hycar synthetic rubber for the sealing material in their ram-type tubing heads and casing heads. This packing material for the rams and casing head seal rings is made with oil-resistant Hycar by the Murray Rubber Company to satisfactorily meet the requirements of positive, non-deteriorating, long-lasting seals.

And this is just one of many examples of how Hycar—with its superb resistance to petroleum products, and to heat, its high abrasion resistance and its high tensile strength—can handle critical assignments efficiently.

Ask your own supplier to furnish you parts made of Hycar for actual tests in your own critical jobs. Find out for yourself what Hycar can do to help you meet these tough problems. *Hycar Chemical Company, Akron 8, Ohio.*

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8. Proved performance by actual field tests.

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Carrington Lewis

Reports From Washington

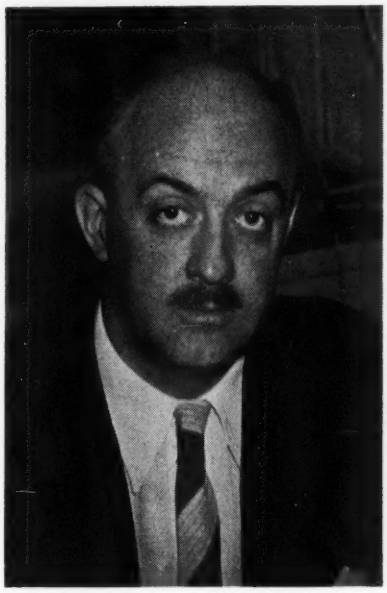
The long, Washington news drought continued this month, with Congress returning from the summer recess only to go through the formality of meeting twice a week, —just long enough for a few remarks and extensions of remarks before adjourning until the next biweekly get-together.

Unfinished oil business is hanging dispiritedly in the various Government departments. The Anglo-American talks — bringing the United States and Great Britain nearer to an accord which observers believe will lead to an eventual world agreement on postwar petroleum matters—are nearing the end; California's place in the stripper well subsidy program remains unsettled; the Senate oil investigating committee, which should provide plenty of interesting oil news in the future, has not yet started public hearings.

. . . Most of these matters are supposed to pick up momentum within a matter of days. The international discussions, now in progress at the State Department, are scheduled to terminate almost while this is being written. The Office of Price Administration is meeting currently to discuss newly-received information from California which may place several California fields on OPA's list of certifications but details are not yet available. The Senate oil committee hearings are less imminent,—no date having been set, as yet, by Chairman Francis Maloney, of Connecticut.

Gossip and speculation are almost all that Washington can fall back on during the steaming dogdays.

The Pacific Coast's oil shortage and the concern which it is creating in Washington are two subjects which do not come under the category of speculation. The Army, the Navy, the Petroleum Administration for War, the Congress and the oil industry itself are thoroughly alive to the fact that—even with highly stepped-up production in the State—the military demand has not yet reached its peak, while supplies are dwindling daily.



GEORGE E. DEWEY
Manpower Counselor—Petroleum Administration for War.

The shortage was the reason for final Congressional acquiescence to the demand for an increase from 15,000 barrels daily to 65,000 B/D in production from Elk Hills reserve and the conclusion of the unit operations agreement between Standard Oil Co. of California and the Navy Department. It is the reason for last month's appeal from Deputy Petroleum Administrator Ralph K. Davies to the California State Lands Commission to exercise its considerable discretion in granting leases permitting new drilling from the uplands along the coast of Southern California out into the submerged tideland structures.

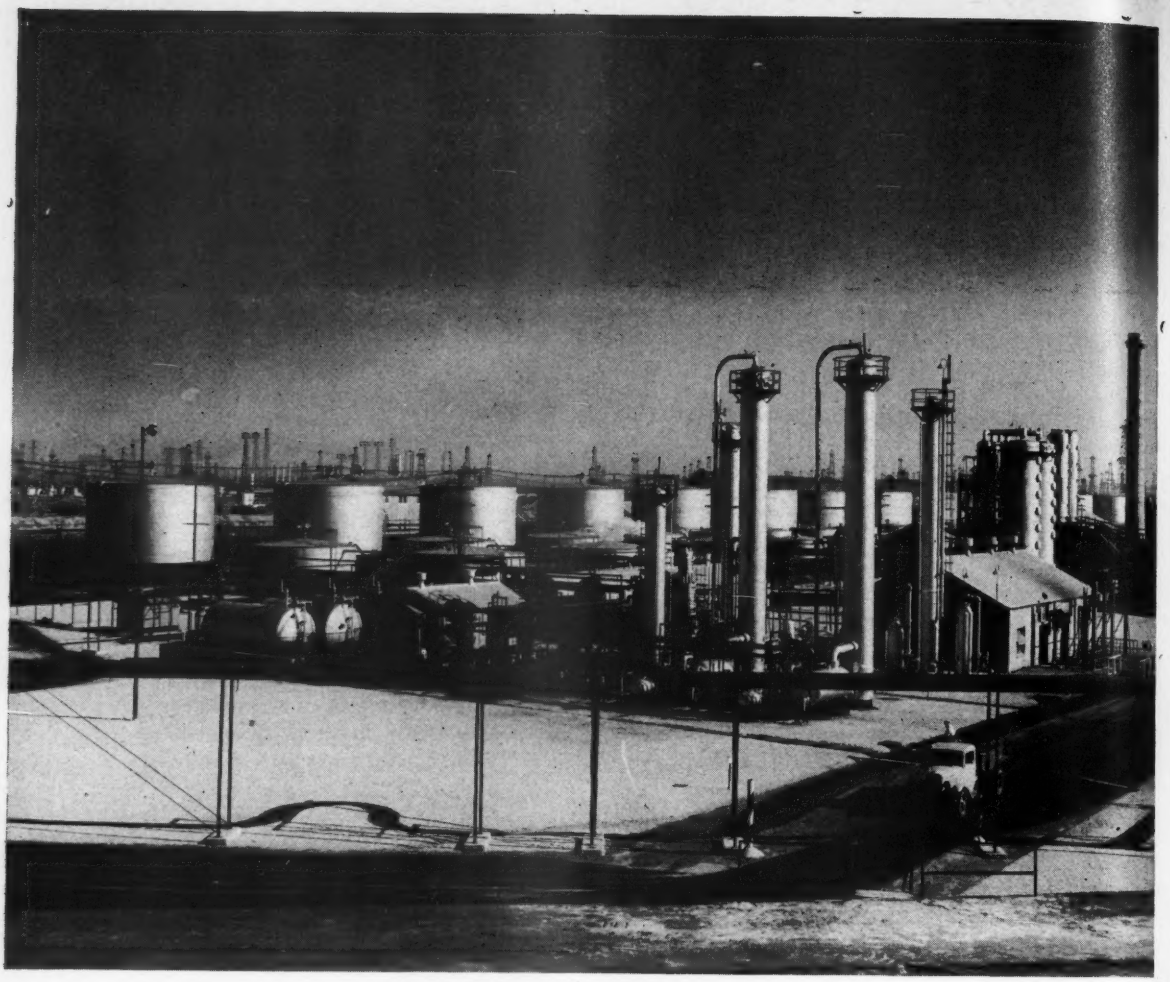
The Maloney committee, in its interim report on gasoline and fuel oil shortages, had this to say about the Pacific Coast:

"The Pacific Coast may well become a critical area, should the crescendo of battle in the Pacific rise, while the war in Europe is still at its peak. Strenuous efforts are being made to provide additional transportation to and storage along the West Coast. In addition, steps which have been taken to enable the Elk Hills oil field to make its proper contribution for this war should be vigorously pushed."

Much of the report was devoted to the really heroic efforts of the oil industry to build up its war-crippled transportation system on the East Coast. In addition to the network of pipelines drawing oil from Texas to the starving East and the record established by the railroads in transporting oil by tanker car, the report called attention to the successful rebuilding of the U. S. tanker fleet which will prove "one of the most vital factors . . . when the history of this war is finally written".

By all means of transportation, deliveries of petroleum and petroleum products to the Eastern seaboard have reached more than 1,735,000 barrels a day, as compared with 1,369,000 B/D in May of last year, the report pointed out.

The transportation problem—which, since the outbreak of the war, has been connected in the public mind with the East Coast—soon will move across the country to the Pacific area, the Maloney committee predicted. Although the intensive drilling program now underway in the Elk Hills Naval Reserve will assure the West Coast of an additional supply of crude oil to help meet military demands in the Pacific war area, the committee foresees an acute situation in California, Oregon and Washington brought about not only from an inability to meet the military demand for California-produced oil but from a scarcity of



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SOUTHERN CALIFORNIA EDISON COMPANY, LTD.

transportation.

"Probably the prime transportation problem within the United States in the coming year will involve the Pacific Coast,"the report stated, "and steps are now being taken to make sure that sufficient oil will be transported to that area to supply not only increasing war needs in the Pacific theater but also civilian requirements".

Concerning the Anglo-American petroleum talks, every kind and type of rumor is available in Washington. These range from a U. S.-British (and later, Russian, etc., etc., pact to shut off the Axis and its collaborators from any post-war participation in the world oil markets to the report that all oil brought into this country from South and Central America will be 48% British owned.

One hears that: Lord Beaverbrook—England's Lord Privy Seal and head of the high-ranking British petroleum mission—is taking an unusually active part in the discussions,—but this report seems slightly exaggerated and most Washington oil observers believe Beaverbrook's name heads the list as "window-dressing" to give the discussions the same importance the name of Secretary of State Hull contributes to the American delegation. Actually, the groundwork for the conferences was done by the technical mission which met here early in the spring.

From the attitude of American officials sitting in on the conferences, there is no reason to believe that any hush-hush agreements are being made that will later embarrass the U. S. oil industry in its foreign operations.

A petroleum "day of reckoning" for Germany and Japan may well be under discussion here, but this is a matter which undoubtedly will be carried through to the peace-table discussions and not settled in the forthcoming petroleum agreement, pact, or treaty.

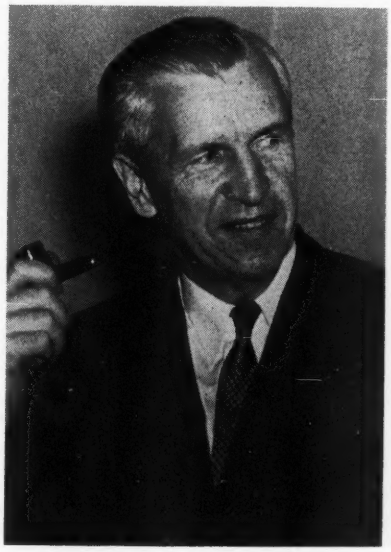
Any plan that will prevent the Axis from building up its oil supplies or actively participating in postwar development presumably will meet with the approval of those who have witnessed the tremendous

JOHN D. KURTZ
Asst. Director of Foreign Supply & Distribution of the Petroleum Administration for War.

change in Germany's fortunes, — starting from the day when Allied attacks on Nazi oil supplies really began to slow down the Germans' mechanized onslaught.

The report that Arabian-American Oil Co. (subsidiary of California Standard and The Texas Co., with important concessions in Saudi Arabia) has been forced into an agreement that it will not sell in the European markets is another "iffy" question that can be settled only when the current State Department talks are made a matter of record. Some agreement as to where Britain, America, Latin American, Russia and other oil producing countries will market their postwar wares is expected to come out of the current discussions but snap-guessing appears to be the principal foundation for the numerous stories that are being circulated on which country will come out on top . . . Our own personal guess is that the British—a nation politically oil-wise compared with the U. S.—will emerge slightly the winner, but that this country will receive more consideration than a good many individuals connected with the U. S. oil industry first believed.

. . . As this is being written, the State Department reports it may be "several days" before the conclusion of the conference. Some formal statement will be forthcoming when the discussions are terminated, but the more conservative Washington writers are betting there will be no real denouement until the United States and Great Britain have formally ratified whatever action may be taken by the joint commission.



WILLIAM C. FRYSINGER
Asst. Director Foreign Supply & Distribution Division of the Petroleum Administration for War.

Incidental information: One oil man, pondering the recent nominations at Chicago observed that, if Tom Dewey is elected in November, "the line will form to the right," at the door to Joe Pew's office.

Despite Office of Price Administration hopefulness, California did not come in under the August 1 wire as eligible for stripper well certifications. OPA officials, however, still are waiting for more detailed information and have wired their California headquarters in an attempt to get the number of producing wells for the month of last December.

OPA has the number of wells on a monthly basis "from all over the country," it was explained, and wants to use the same procedure with California. Otherwise, the certifications will have to be worked up on a field basis, instead of a pool basis.

If the desired information comes

(Continued on page 32)

Matilda has the answers

Since we propose to tell you about smiting the enemy with an airplane which cannot fly, maybe we'd better start by reminding you how the Greeks licked ancient Troy—with a horse that couldn't run. That Wooden Horse — its innards crammed with the first paratroopers — is history. Tomorrow *Matilda* will be history.

This *Matilda* — like every good bomber she has a name — really looks no more like a bomber than the Greeks' plank nag looked like a horse. *Matilda* has no wings, no fuselage, no landing gear. But she has brains. Or maybe she's psychic. Anyhow, she knows the answers.

Actually, *Matilda* is just the mechanical essence of an airplane, set up in the Richmond laboratories of our new subsidiary, The California Research Corporation. Her job is to help our planes outfly the Germans and the Japs—faster . . . farther . . . higher. This she does by giving our scientists the answers about improvements in airplane fuel and lubricants.

As research experts figure out new things that *should* work, *Matilda* tells them, cold-turkey, whether they *will* work. She simulates flight conditions. And on a variety of recording devices, she writes a "log" of everything that happens—down to the smallest knock.

Most of *Matilda's* accomplishments are military secrets. But it's all right to reveal that *Matilda* helped to give our flyers 100-octane gasoline when the best the enemy could do was 87-octane. She's one reason our Air Force could pace the Invasion by boldly taking on the Luftwaffe.

And there's another, less important reason why you'll be interested in *Matilda's* achievements. With victory, you'll share them directly as you ride your helicopter, your private plane, your automobile—or almost any transportation but a wooden horse.

STANDARD OF CALIFORNIA

E flag, with 2 stars, awarded to our Richmond Refinery

Natural Gas - Natural Gasoline Terminology

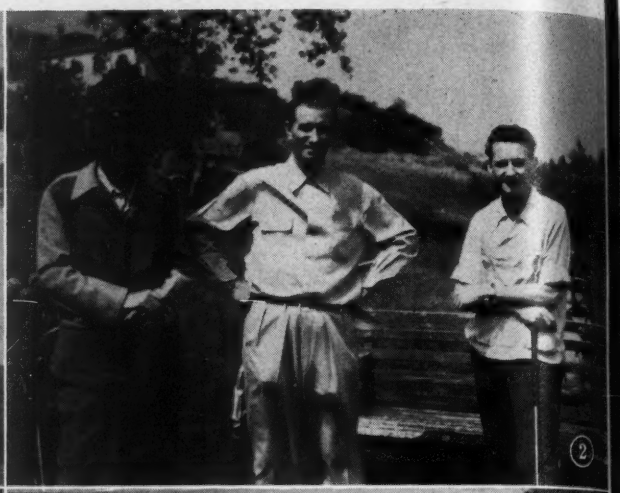
For some time, according to a number of forward-thinking individuals in the California natural gas and natural gasoline industries, there has been a recognized need for more clean cut definitions of some of the terms commonly used by both industries. This need, points out this group of gas and gasoline men, is growing steadily with the continually increasing number of forms, questionnaires and reports it is found necessary to prepare.

Time and again one finds that terms, the meaning of which at first seems obvious, are subject to several interpretations. Misunderstandings follow which might easily have been avoided had some list of generally accepted definitions or terminology been available.

As a step toward solution of this problem, the following Natural Gas and Natural Gasoline Terminology has been compiled, based on a study of the ideas, suggestions and opinions offered by a number of men in the natural gas and gasoline industries in California who sincerely believe that it is a step in the right direction. It is thought to be comprehensive though brief, and each definition has been framed with consideration for other definitions which might be related. Although not intended to be accepted as final, it is offered to the industry at large for such use as those interested may wish to make of it in the solution of a common problem.

1. NATURAL GAS:
   Any gas of natural origin consisting principally of hydrocarbons.
2. FORMATION GAS:
   Any Natural Gas producible directly from its original source.
3. WET GAS:
   Any unprocessed Natural Gas which is producible from stratum containing crude petroleum and/or condensate (specifically, the term "wet" bears no inference as to the water content of the gas.)
4. DRY GAS:
   Any Natural Gas that is producible from a stratum that does not contain crude petroleum and/or condensate.
5. RESIDUE GAS:
   Any Natural Gas remaining after the extraction of liquid products from wet gas. (The term Dry Gas has often been used in lieu of the preferable term Residue Gas.)
6. SHRINKAGE:
   The reduction in volume of the Wet Gas input to a Processing Plant due to the extraction of liquid products. (Note: Does not include Plant Fuel.)
7. PLANT FUEL:
   Any natural gas used for fuel in the Processing Plant.
8. PROCESSING PLANT:
   Any plant that is used to process Natural Gas for the extraction of hydrocarbons and/or other substances.
9. NATURAL GASOLINE PLANT:
   A Processing Plant operated for the purpose of extracting Natural Gasoline and/or lighter hydrocarbons from Wet Gas.
10. CONDENSATE PLANT:
    Any Processing Plant extracting liquid hydrocarbons from a Wet Gas containing condensate.
11. COMPRESSOR PLANT:
    Any plant for compressing Natural Gas or other hydrocarbon vapors. It is a unit of a Processing Plant if used for compressing Wet Gas that is being processed for the extraction of liquids.
12. CIRCULATED GAS:
    Any Natural Gas which is used to produce fluid from wells and which is immediately returned from the well (such as Gas-lift Gas), or which rapidly migrates to an adjoining well and is currently produced along with the Formation Gas produced by such a well.
13. REPRESSURE GAS:
    Any Natural Gas injected into a formation capable of producing crude petroleum and/or condensate to aid in maintaining pressure in an underground reservoir for the purpose of assisting in the future recovery of any fluid (Pressure Maintenance).
14. STORAGE GAS:
    Any Natural Gas returned to an underground reservoir for the purpose of creating a Natural Gas reserve but not intended for the purpose of aiding in the recovery of any fluid.
15. UNCONSERVED GAS:
    Any Natural Gas that is blown to the air.
16. VAPOR:
    Any gas evaporated from liquid hydrocarbons or extracted from Wet Gas within the Processing Plant and which requires further processing for the recovery of liquid products.
17. NATURAL GASOLINE COMPANY:
    Company engaged in the extraction of Natural Gasoline.
18. GAS COMPANY:
    A Company engaged in the business of purchasing and reselling dry gas or residue gas.
19. LIQUEFIED PETROLEUM GAS (L.P.G.):
    Any hydrocarbon mixture, the predominant components of which consist of normal butane or isobutane, or propane, or mixtures thereof, in any ratio and which is produced and marketed for fuel purposes.
20. NATURAL GASOLINE:
    Any liquid hydrocarbon mixture that contains substantial quantities of pentanes and heavier, which has been extracted from Natural Gas and has an end point not greater than that of Motor Gasoline.
21. CONDENSATE:
    The liquid produced by a reduction of pressure, which may be accompanied by a reduction of temperature (Retrograde Condensation) from a high pressure Wet Gas which existed in the formation in a single gaseous phase.
22. LIQUEFIED GAS STOCK:
    Liquefied hydrocarbons consisting of isopentane or lighter materials substantially pure, or mixtures in any ratio which have been produced for further processing.

(*Continued on page 25*)



(1) Jack Ballagh, Don Thompson, Curt Corder, Ernie Fowks, Karl Jauman.

(2) K. C. M. Anderson, C. Don Wright, Bill Bettis.

(3) H. C. Ross, A. F. Brown, Frank Bergeron, B. Bronzan.

(4) Chester Yokum, Ralph Clemmons, Earl E. Cater, Ollie Branyan.

(5) Warren Smith, Paul Medearis, C. W. Pierce, Chas. Grandanbert.

(6) Ralph Porter, H. F. Schlittler, W. G. Wellington, W. E. Shakleton.

(7) Holly Hayter, H. D. Dawson, Jim Conlon, L. Geo. Trembley.

(8) Lee Laird, Waldo Moore, Paul Cavins, Bob Moore.

(9) Chas. Rector, Percy Hayes, Ray Judy H. F. Kearns, Frank Summers.

(10) R. C. Smith, Abe Haglund, A. (Dutch) Zwerneman, Joe Pooler.

(11) J. W. Templeton, H. M. Paulsen, C. S. Perkins, O. W. Working.

The largest, and some say the best party ever put on by the Los Angeles Chapter of Nomads was the Fifth Annual Wing Ding held at the Riviera Country Club on July 28, 1944. Nearly 100 Nomads and guests played in the golf tournament during the day and 286 were at the dinner and the elaborate stage show which climaxed the affair. After finishing the golf tournament and before dinner, games of "skill" were played wtih phoney money, the winnings from these games being used to bid for prizes which, together with the golf prizes, were awarded by an attractive stage and screen actress immediately after dinner had been served.

The winners of the golf prizes, which consisted of merchandise orders for the amounts indicated, were

O. W. Working	$25.00
Paul Bowen	15.00
W. G. Wellington	15.00
A. R. Holmund	10.00
A. E. Schultz	10.00
E. M. Steele	5.00

The game prizes were auctioned off in the order named and were won by

Capt. Jackson	Bottle of scotch
Major Post	Shine outfit
Don Moses	Bottle of bourbon
Carl Beal	Dunnage bag
Roy Dowling	Bottle of scotch
Abe Haglund	Leather box
Roy Dowing	Bottle of scotch
Paul Cavins	Toilet water
Roy Dowing	Bottle of scotch
Ox Morgan	Leather jacket
Mr. Aderhold	Bottle of bourbon

The last bulwark of freedom*
America is the last bulwark of freedom in a war-torn world. In the relatively short span of one hundred and fifty years since the bloodletting of our grandfathers gave us the precious rights to our pursuit of happiness; in the very short time since our own pioneering fathers opened up frontiers all over the western part of our country; we have become so accustomed to the generous benefits and freedoms that they left us that we have overlooked the simple underlying principles. Many of us do not even remember the principles. Perhaps some of us have been taking things for granted to the extent that we do not even know there are any principles.
Halliburton Oil Well Cementing Co.
Duncan, Oklahoma
* Excerpted from "The Seeds That Grow Jobs"—a story of how Halliburton grows jobs, dedicated to the American system of free enterprise. Your copy will be forwarded on request.

C. N. G. A. Committees For 1944-45

At the annual Directors meeting of July 11, C. D. Gard, president of the California Natural Gasoline Association announced the appointment of the various Association committees for the forthcoming year.

The Executive Committee, which guides the affairs of the organization, is made up of the following: C. D. Gard, Chairman; M. L. Arnold, Richfield Oil Corp., vice chairman; L. V. Cassaday, Lomita Gaso. Co.; W. C. Dayhuff, Calif. Research Corp.; O. C. Field, O. C. Field Gaso. Corp.; R. W. Garman, PAW; R. D. Gibbs, Union Oil Co.; R. W. Heath, Signal Oil & Gas Co.; H. R. Linhoff, Richfield Oil Corp.; P. S. Magruder, Gen. Pet. Corp.; N. H. Mull, The Texas Co.; Wm. W. Robinson, Jr., The Texas Co.; T. L. Taggart, Standard Oil Co.; R. C. Wheeler, Gen. Pet. Corp.; F. L. Colton, Tide Water Assoc. Co.; W. Kraft, Honolulu Oil Corp.; E. W. McAllister, Western Gulf Oil Co.; Geo. C. McLaren, Standard Oil Co.; H. E. Moulton, C.C.M.O.; G. Sowards, Ohio Oil Co.; J. B. Taylor, Signal Oil & Gas Co.; R. S. Tulin, Shell Oil Co.; J. S. Fluor, Jr., The Fluor Corp., Ltd.; W. A. Kirk, Calif. So. Oil Co.; and Wm. Moeller, Jr., So. Calif. Gas Co.

The Advisory Committee consists of M. L. Arnold, Chairman; with R. D. Gibbs; R. W .Heath; H. R. Linhoff; P. S. Magruder; Wm. Moeller, Jr.; and R. S. Tulin.

The Finance & Budget Committee is made up of Geo. C. McLaren, chairman; with M. L. Arnold; C. D. Gard; R. W. Heath; and Geo. L. Tyler.

The Entertainment Committee is made up of Coles Bason, Ingersoll-Rand Co., chairman; with Ed Bishop, Fluor Corp.; Earl Brock, Southwest Welding Co.; Gordon Greene, Robinson Orifice Co.; Hal Hill, General Electric Co.; and Martin Newell, Tide Water Assoc. Oil Co.

The Annual Fall Meeting Committee has H. P. Saueressig, Sou. Calif. Gas Co. as chairman; and includes in the membership M. L. Arnold; Coles Bason; R. R. Crippen, The Texas Co.; D. E. McFaddin, Union Oil Co.; Geo. C. McLaren; H. Ransford, Signal Oil Co.; W. L. Rifenberick, Ind. Engrs. Inc.; and Geo. L. Tyler.

The Membership Committee consists of H. E. Dresser, Fluor Corp., chairman; and Randal Maass, Gen. Pet. Corp.; and H. P. Saueressig.

The Program Committee is made up of W. L. Rifenberick, chairman; with R. S. Ridgway, Standard Oil Co., vice chairman; R. L. Allen, Gen. Pet. Corp.; A. L. Bishop, The Texas Co.; J. C. Herron, Shell Co.; and P. Mettling, Cooper-Bessemer Corp.

Harry Ransford, Signal Oil Co., is chairman of the Publicity Committee. Other members to this group have not yet been appointed.

Technical and Sub-Committees

The Technical Committee, which is organized to prepare the Association's technical literature and testing standards, is headed by R. R. Crippen, The Texas Co. as chairman, and C. L. Hutchings, Tide Water Assoc. Oil Co. as vice chairman. The membership consists of T. F. G. Boyd, Union Oil Co.; F. E. Bradley, C.C.M.O.; R. F. Childs, Standard Oil Co.; M. R. Church, Shell Co.; W. R. Cowan, Natural Gaso. Co.; M. S. Hubbell, Lomita Gaso. Co.; H. J. Jones, Western States Gaso. Co.; M. W. Kibre, Gen. Pet. Corp.; L. L. Lack, Shepard-Pendleton; J. L. Oberseider, Sou. Calif. Gas Co.; G. P. Ryan, Oilfield Testing Labty.; E. J. Squire, Shell Co.; J. B. Taylor, Signal Oil & Gas Co.; E. P. Valby, Richfield Oil Corp.; E. W. Walker, K.N.D.A.; and M. Welch, Barnsdall Oil Co.

The chairmen of the various subcommittees are:

J. T. Cortelyou, Sou. Calif. Gas Co., chairman, Sub-committee No. 1 on Gas Measurement.

L. C. Miller, Signal Oil & Gas Co.; chairman, Sub-committee No. 2 on Low Temperature Fractional Analysis.

D. B. Jones, Calif. Research Corp.; chairman, Sub-committee No. 5 on Physical Constants.

T. F. G. Boyd, Union Oil Co., chairman, Sub-committee No. 6 on the Charcoal Test.

C. L. Hutchings, Tide Water Assoc. Oil Co., chairman, Sub-committee No. 9 on Liquefied Petroleum Gas.

H. J. Multer, Union Oil Co., chairman, Sub-committee No. 10 on Editorial & Revisions.

N.G.A.A. To Study Corrosion In Condensate Wells

In a coordinated effort to combat the serious corrosion being encountered in the pipe and fittings of high pressure condensate wells, the Natural Gasoline Association of America is sponsoring a cooperative research program having as its objective the determination of the causes and means of eliminating this corrosion.

Major portion of the research program has been placed with the staff of Battelle Memorial Institute, Columbus, Ohio, where Dr. H. A. Pray will conduct and supervise laboratory studies concerned with the metallurgical and chemical problems involved. Dr. Pray has just completed a tour of condensate producing areas in Texas and Louisiana where he observed the serious effects of corrosion and discussed with technical men the various efforts already made to combat it.

Supplementing the work at Battelle Memorial Institute, it is planned to have full scale experiments carried on in the field by the staff of some southwestern institution as yet unselected. It is felt that this broad approach to the problems through both laboratory and field studies by independent agencies whose data and activities are correlated and supervised by a central research project committee will give the most comprehensive results in the shortest time. This committee will also serve as a clearinghouse for corrosion research data developed by individual companies and has arranged for cooperative exchange of information with the U. S. Bureau of Mines and the American Petroleum Institute.

According to William F. Lowe, N.G.A.A. secretary, it is expected the project will be continued for at least three years because the type of corrosion being studied is particularly baffling and presents some

new and exceedingly complex problems. The annual budget has been set at $20,000 which is being raised by subscription among interested companies.

At a recent meeting in Houston organizational plans were completed and T. S. Bacon, Director of Research, Lone Star Producing Co., Dallas, was made chairman of the newly formed Corrosion Research Project Committee. Other members of this group include the following: Dr. R. G. Atkinson, Shamrock Oil & Gas Co., Amarillo; W. A. Bowser, Atlantic Refining Co., Dallas; Walter Dayhuff, Standard Oil Company of California, Los Angeles; J. M. Dillon, Jr., Shell Oil Co., Inc., Houston; J. M. Flaitz, Distillate Production Corp., Houston; R. W. French, Continental Oil Co., Ponca City; T. W. Johnson, Union Producing Co., Shreveport; W. W. McNeal, Jr., J. S. Abercrombie Co., Houston; T. W. McGuire, Cotton Valley Operators Committee, Cotton Valley, La.; H. T. Pruett, Gulf Plains Corp., Corpus Christi; P. A. Stagg, Superior Oil Co., Houston; C. R. Williams, The Chicago Corp., Corpus Christi; R. T. Wilson, La Gloria Corp., Corpus Christi; and Lester Wood, Phillips Petroleum Co., Bartlesville.

Other contributing companies whose official representatives have not yet been named include Arkansas Fuel Oil Co., Humble Oil & Refining Co., Ohio Oil Co., Magnolia Petroleum Corp., and Stanolind Oil & Gas Co.

In commenting on the growing seriousness of this corrosion, Mr. Bacon stated it was difficult to overemphasize its destructive effects: "Occurring as it does in high pressure wells, most of which range in depth from 7000 to 10,000 or more feet, there is an unusual hazard. Serious corrosion was initially discovered in the Opelika field in 1942 and was first thought to be peculiar to that field. Since that time, however, it has been found in a number of other condensate fields and the industry is faced with a really menacing problem.

"The corrosion is all internal," said Bacon, "and cannot be observed except by teardown inspection. It is not continuous throughout the well fittings but is spotted at unexpected locations in the surface connections or may appear 400 feet down the tubing. In some cases destruction of a Christmas tree has been so rapid, replacement has been necessary within 90 days while in others the corrosion has been at a much slower rate. Repairs on some wells where the tubing has failed because of corrosion near the top have cost from $50,000 to $70,000 per well. With these facts in mind, it is rather easy to understand why the industry is so interested in discovering the cause and cure for this expensive and very disturbing element in its operations."

U. S. Aviation Gasoline Production Up 1000%

Four hundred and fifty U. S. Refineries are producing aviation gasoline and its ingredients. In the past two and one-half years 50 aviation gasoline plants have been constructed at a cost of nearly one billion dollars, multiplying the output tenfold.

California Research Corp. Officials

The California Research Corp., a wholly owned subsidiary of the Standard Oil Company of California, has taken over the activities of Standard's Research, Development and Patent Departments.

Officers of the new corporation are: R. G. Follis, chairman of the board; R. A. Halloran, president; J. N. Adams, vice-president; F. L. Craise, vice-president; W. H. Davis, vice-president; S. Sharp, asst. vice-president; E. Sibbett, secretary; H. D. Armstrong, treasurer; and G. M. Foster, asst. secretary.

The directors of the corporation are: R. G. Follis, R. A. Halloran, J. N. Adams, F. L. Craise, W. N. Davis, A. Kremser, A L. Lyman, G. A. Davidson, C. E. Finney, Jr., and R. G. Smith.

The head office is located at 200 Bush Street, San Francisco. The various laboratories are located at Richmond, El Segundo, and Santa Fe Springs. Activities consist of research, development and technical service in petroleum and other fields which benefit the operating units of the parent company. The organization is also a patent holding company.

Standard of Calif. and Texaco Build Arabian Refineries

The Standard Oil Company of California and The Texas Company are going ahead with the construction of refineries in Arabia. One unit is being constructed on Bahrein Island, while a 50,000-barrel installation is under way in Saudi Arabia.

Gasoline Assn. Elects New Members

New members recently voted into the California Natural Gasoline Association are: J. R. Shanley, Long Beach; R. R. Brown, Jr., Parkhill-Wade; F. D. Parker, Bechtel-McCone Corp.; E. A. Brook, Southwest Welding & Mfg. Co.; and R. F. Childs, Standard Oil Co. of Calif.

T. H. Acres Heads A.P.I. Committee

T. H. Acres of the Richfield Oil Corp. has been named national chairman of the Central Committee on Drilling and Production Practice of the American Petroleum Institute, according to an announcement by C. A. Young, secretary of the Division of Production.

The California District section of this committee has a membership made up of E. C. Babson and J. E. Sherborne, Union Oil Co.; A. H. Bell, Continental Oil Co.; D. L. Caldwell, Barnsdall Oil Co.; W. H. Farrand and Wm. W. Robinson, Jr., The Texas Co.; E. G. Gaylord, Standard Oil Co.; W. E. Gilbert, Shell Oil Co.; H. A. Godde, Signal Oil & Gas Co.; J. Jensen, Tide Water Associated Oil Co.; H. N. Marsh and N. Johnston, General Pet. Corp.; R. W. Marshall, Drilling & Exploration Co.; and E. K. Parks, Consulting Engr., Los Angeles.

Richfield Stakes Orange County "Cat"

Approximately ½mile northerly along the railroad tracks, from the town of Olive, the Richfield Oil Corp. has staked a location for Hamrick Olive No. 1. The location falls 5135 ft. north and 2080 ft. west from the southeast corner of projected section 8-4s-9w. The well is being drilled as a deep test of the area.

Death Takes J. Simon Fluor, Pioneer Industrialist

J. Simon Fluor, whose name is known throughout the world whereever oil is produced and refined, passed away July 29 at his home in Santa Ana, California. He was the founder and president of the Fluor Corporation, Ltd., designers, engineers and constructors, of Los Angeles. Known principally for its cooling towers, the concern has made other contributions to advancement in the petroleum industry for which Mr. Fluor was responsible.

J. Simon Fluor was born in Switzerland and came to this country in 1887 at the age of 21. Starting out in the construction business in Wisconsin, he did well, but in 1912 decided to come to California where he believed that oil could be to him what the lumber and paper mills had been in Wisconsin. His first job in the oil industry was a compression plant in the Richfield oil field. In 1920, when the water problem in Southern California began to demand better answers, he built his first cooling tower. Thus began a business that expanded rapidly with the growth of the oil industry. Today the company which he founded is the California redwood industry's largest customer. But building cooling towers is far from the Fluor organization's only interest.

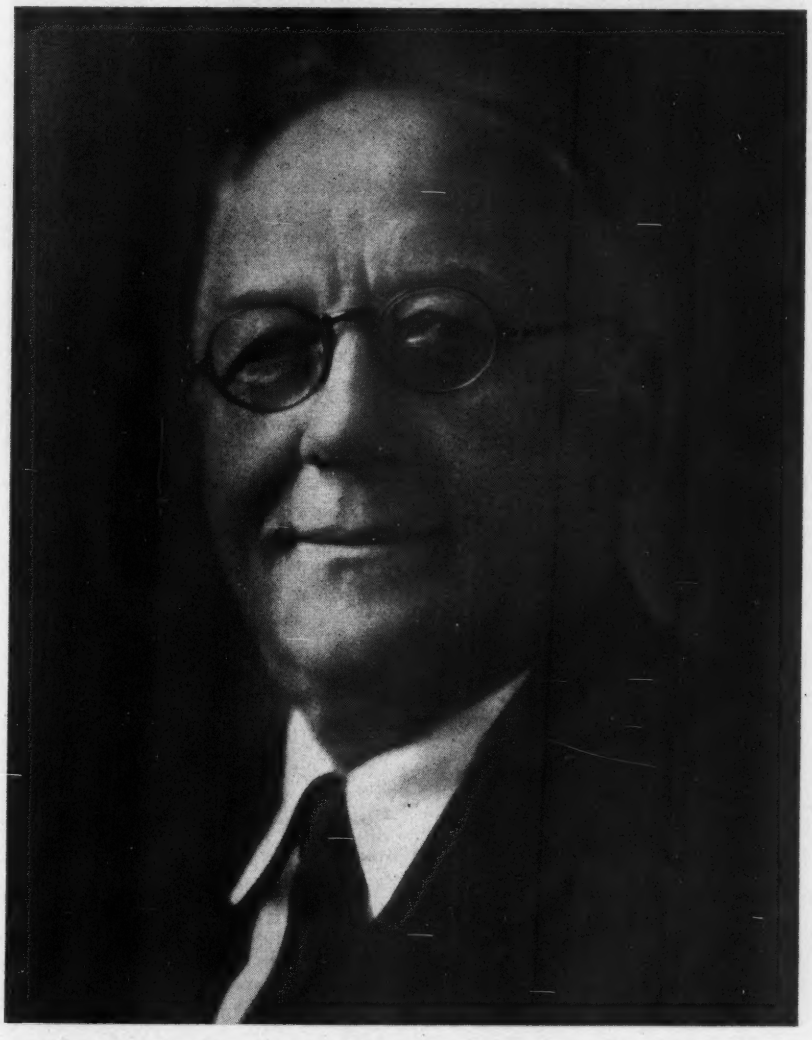
When he was getting along toward his seventies Mr. Fluor invented an air cooled muffler for pipe line pumping stations and other internal combustion power plants. At the same time he and his three sons, who entered the business after the first World War, were branching out and designing, engineering and constructing plants for oil, gas and allied industries. A strong organization of employees was built up and today there are men on the payroll who started with Mr. Fluor in Southern California.

Mr. Fluor had been inactive in business for some time before his death, having gradually turned over the management of his enterprise to his sons, P. E. Fluor, president of Fluor Corporation; J. S. Fluor, executive vice president and general manager, and Fred C. Fluor, Director and supervisor of equipment.

Said the Anaheim Bulletin, in commenting editorially on Mr. Fluor's passing: "With brains, courage and a very limited capital, he embarked on an industrial career. From the modest beginning the corporation which bears his name grew to a gigantic enterprise with its tendons stretching around the world. Today it is the greatest industry of its kind in the world—a tribute to its founder.

And the editor of his home town paper, the Santa Ana Register, wrote:

"To those who would change the American way of life from a land where opportunity exists, as the life of J. Simon Fluor so graphically illustrates, to some sort of stateism here is the answer. Mr. Fluor contributed much to the land of his choosing in a physical sense, but his real contribution was the inspiration that comes from his portrayal of the truth that in a free country the opportunity to succeed both financially and spiritually comes to all of us."



. . . "his real contribution was the inspiration that comes from his portrayal of the truth that in a free country the opportunity to succeed both financially and spiritually comes to all of us."

William A. Ross (left), President of Columbia Steel Company and Benjamin F. Fairless, President of United States Steel Corporation during a press interview at the St. Frances Hotel in San Francisco.

Mr. Fairless is making a tour of inspection of Torrance Works (Calif.) and Pittsburgh Works (Calif.) of Columbia Steel Company, which is a subsidiary of U. S. Steel Corporation

G. E. Appoints Poppino as Sales Engineer in Bakersfield Area

Recognizing the need for more highly specialized service to the expanding Bakersfield area, the General Electric Company has appointed Carl A. Poppino as sales engineer, with headquarters in Bakersfield. He will handle G. E. contacts with oil companies, agricultural and industrial businesses throughout that territory, according to M. Rhine of San Francisco, manager of the company's Industrial Division, Pacific District, who announced the appointment today.

Mr. Poppino, who has come to Bakersfield from G. E.'s Phoenix, Arizona, office, has spent eighteen years with that company. He has a broad and practical background in the use and operation of electrical equipment, which includes general industrial experience in the midwestern states, and work with agricultural and irrigation operations in Arizona. His wide background in the petroleum industry was acquired in Venezuela and the Dutch West Indies.

Mr. Poppino has already taken up his new duties and has established his home in Bakersfield with his family.

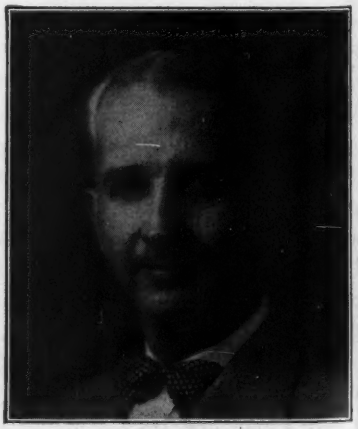
Colonel Rockwell Announces Appointment of A. J. Kerr as General Sales Manager

Colonel Willard F. Rockwell, President of the Pittsburgh Equitable Meter Company-Merco Nordstrom Valve Company, announced on July 1st the appointment of A. J. Kerr to the position of General Sales Manager for the combined organizations. Mr. Kerr, a veteran of 20 years with the company, was District Manager of the firm's midwest headquarters at Tulsa, Oklahoma, prior to his Pittsburgh home office appointment.

In assuming his new duties, Kerr brings to Pemco's head sales office a wealth of sales experience gleaned from his association with equipment buyers, engineers and operators throughout the country, as well as in his midwest territory. A member of the American Society of Mechanical Engineers, he was recently appointed to serve as manager of the Society for a 3-year term.

A graduate of Carnegie Institute of Technology with a B. S. in Mechanical Engineering, Kerr was appointed District Manager of the Equitable Meter Company's Tulsa office in 1925, prior to the merger of the Pittsburgh Meter Company and the Equitable Meter Company in 1926.

Kerr's first official act as Sales Manager was to appoint M. D. Gilbert as District Manager of the Tulsa office, C. K. Madison as District Manager of the Houston, Texas, office and W. S. Andrews as District Manager of the Pittsburgh, Pa., office of the company. Gilbert and Madison formerly served as Service Engineers in the Midwest territory.



A. J. Kerr

Future of South American Oil Merits Close Attention

A recent address by Joseph E. Pogue before the Inter-American Institute of the University of North Carolina reveals many interesting facts about South American oil developments—facts which may have a considerable bearing upon the post-war oil structure of the Western Hemisphere. Quoting the speaker in abstract:

There are twenty-one sovereign states in the Western Hemisphere. Two of them, the United States and Venezuela, produce oil on a grand scale, ranking first and third in the entire world: together they are responsible for the output of 93 per cent of the Western Hemisphere's oil. Venezuela is the largest exporter of oil in the world.

In South America before the war the annual per capita use of oil was 28 gallons; in North America this figure was ten times as great, or 282 gallons. The U. S. headed the list with 367 gallons. Here oil consumption is widespread among all segments of the population as witnessed by a motor car for every 1.4 families. Throughout Latin America the per capita consumption varies from a high of 96 gallons to a low of 2 gallons, averaging 31 gallons, and in no country is its diffusion very marked.

Taking the year 1938 as a base to avoid the distortions of war, we find that the U. S. consumed 94 percent of its current crude oil production, shipping 6 percent abroad. In comparison the rest of the hemisphere consumed 55 percent and exported 45 percent, while South America consumed 24 percent and exported 76 percent.

Mexican Oil Developments Differ from U. S.

Mexico offers an interesting contrast to the U. S. in its oil developments. Oil was found in Mexico in 1900, but important discoveries did not take place until 1908. For the next thirteen years the oil production of Mexico enjoyed a spectacular rise, in 1921 reaching a level of 550,000 barrels a day, 42 percent of the production rate of the U. S. at that time. Production then declined for a decade, falling below 100,000 barrels daily in 1931, thereafter rising slightly for several years, but resuming its downward trend in 1938 when most of the privately owned properties were expropriated and nationalized. Mexico has produced slightly over 2 billion barrels of oil, contains a proved reserve of 700 millions, and holds important potentialities for future discoveries.

Venezuela's Rise Important

The rise of Venezuela as a great oil producing country coincided with the decline of Mexico as a large factor in the oil world. Oil was first discovered in Venezuela in 1913 after six years of exploration, but another ten years elapsed before significant production was developed. Daily production by 1926 had reached 100,000 barrels and by 1937, 500,000 barrels. Private oil companies have invested about 400 million dollars in the petroleum industry of Venezuela. The cumulative oil production of that country is 2.6 billion barrels, its proved reserve is 6 billion barrels, and there is promise of large future discoveries.

Colombia, Peru, Ecuador and Argentina

The oil operations of Colombia and Peru are conducted by foreign oil companies, and each country has developed fairly substantial production, most of which is exported. The oil laws of Colombia have long had restrictive features which have retarded exploration to some extent, but more active developments appear to be under way. Ecuador has also been the scene of nominal oil developments for foreign capital.

Argentina has restricted the scope of private enterprise by the establishment of a government monopoly, although private companies which originally developed the oil business there are still permitted to operate under restrictions. The oil production of Argentina reached a level of 68,000 barrels daily in 1943, but still falls about a third short of the country's consumption. Argentina is thus the only important oil-producing state in Latin America that fails to produce its internal requirements, despite its great area favorable for oil developments.

Bolivia and Brazil

Bolivia has nationalized its oil reserves by expropriating the properties of the foreign oil company that first undertook oil operations there, and there has been little development subsequently, with production in 1943 at a level of 1,000 barrels daily.

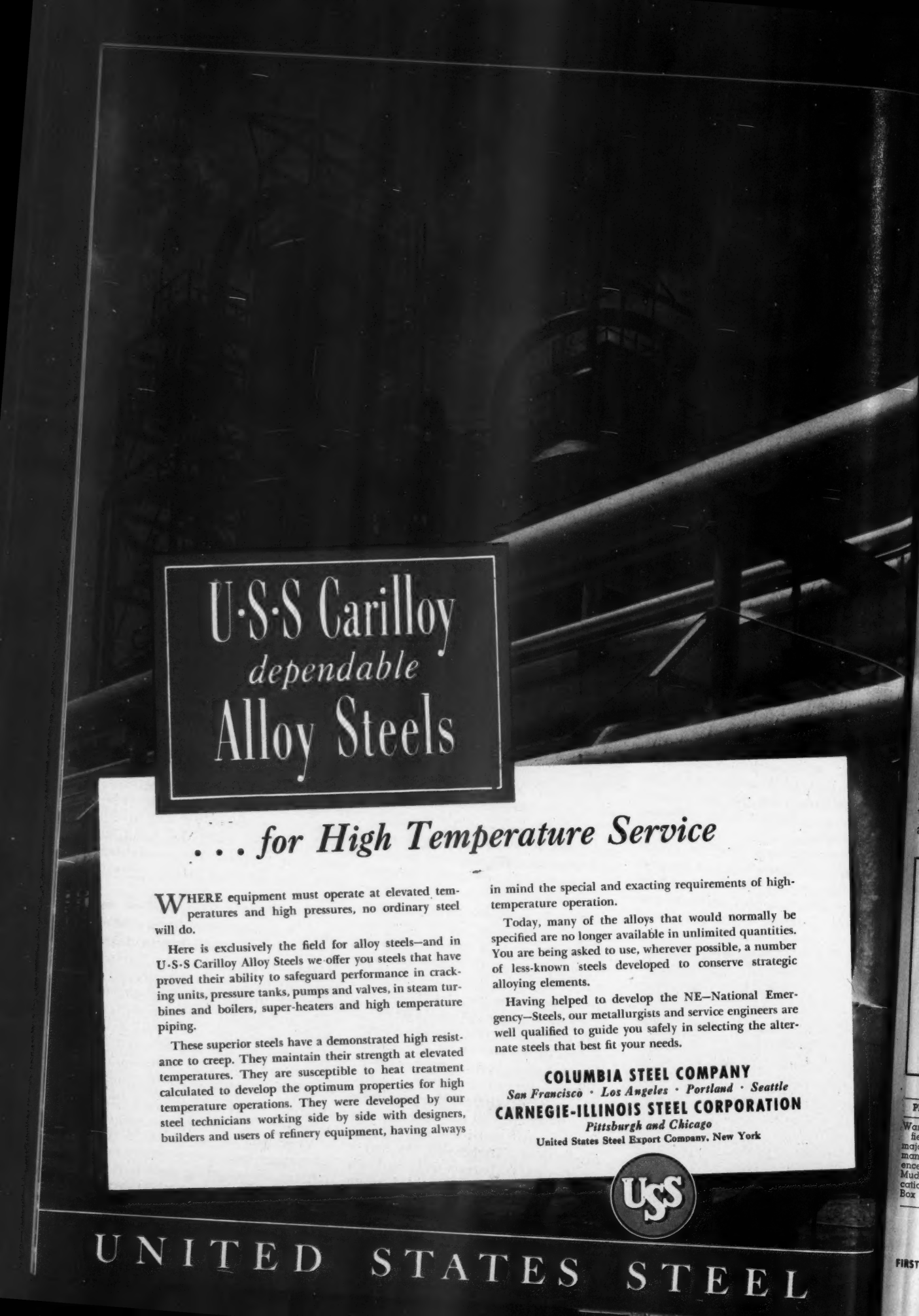
Brazil is a country of larger area than the continental United States and contains great stratigraphic basins favorable for the occurrence of oil; yet its oil development has been negligible, for it first entered the ranks of oil-producing countries in 1943 with an output of 100 barrels a day. The laws of Brazil have not been favorable to oil developments by outside private capital.

Latin America Essentially Agricultural

Latin America is predominately an area of agricultural resources and this feature has established the basic pattern of its economy. Hitherto oil in Latin America has been incidental rather than pervasive as in the United States and has consequently exercised only a limited and localized effect upon the countries and their peoples. Its possibilities have thus far been largely unrealized.

Yet oil is "made to order" for Latin Amercia. Its undiscovered oil resources are undoubtedly large. Marked by great mountain barriers and vast jungles, its topography is unsuited to railway developments on a grand scale, but the separate centers of activity are easily interconnected by the airplane and the motor car. Oil can immeasurably benefit the peoples of Latin America if its discovery and use can be facilitated.

Venezuela has gained substantial advantage from her position as the largest oil-exporting nation in the world, although the country has not



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fully found a way to spread its benefits to all of her people. For many years prior to the disturbed conditions of war, oil represented 80 to 90 percent of Venezuela's total exports, and provided the foreign exchange to cover the cost of all imports, and contributed one-third of the government's total revenue. In Peru the oil exports represent about 30 percent of the country's export trade; while without petroleum, Colombia would be forced to curtail her imports. Some fifteen years ago, Mexico was the world's largest exporter of oil and its oil was an important factor in the last war, but Mexico's foreign trade in oil has dwindled to small importance.

Private Enterprise Offers Much to Latin American Oil

While the records of profits derived from foreign oil operations are not publicly available, there is much evidence to show that the results are not out of keeping with the risks involved and are on the modest side. A detailed computation of the rate of return on invested capital of 30 representative oil companies for the ten years, 1934-1943, shows an average of 6.6 percent.

In 1940, according to the U. S. Department of Commerce, the total investment of U. S. oil companies in foreign oil operations was 1,277 million dollars, and the aggregate net income from these operations was 105 million dollars, indicating a rate of return of 8.2 percent.

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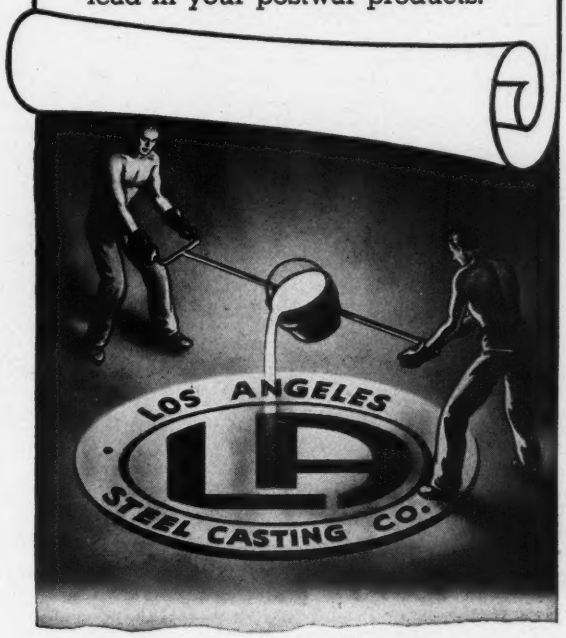

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A Classification System for Wildcat Wells

Considering the vast amount of recent discussion on the subject of well classifications, it seems that as a matter of consistency wildcat wells should be classified and subclassified. Schemes for classification of all other exploratory wells have already been prepared. The importance and significance of the classification of wildcats have received very little attention, except from one researcher who has approached the problem with a category, "New Pool Wildcat"; but said researcher immediately receded from the problem, and, as it is currently unsolved, the following classification is proposed. Many wildcat wells are drilled with the thought that if there is coincidence of enough postulated conditions, oil will be found at a certain place. Others are drilled with a bit.

This immediately and automatically points the way to a dual classification of wildcat wells.

Believing that every oil man ought to know what kind of a well a hypothalassic clinoparamesocat is, the accompanying article is published. The document may have additional value for its discussions of the origin of the term "wildcat".

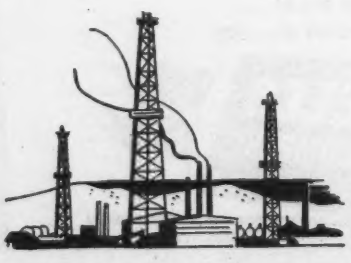
It has been pointed out that none of the recently proposed classifications of exploratory wells includes a treatment of the various kinds of wildcat. Therefor, because the article treats a subject not heretofore discussed, it may purvey some new ideas to its readers.

The author is unknown to the Editors, but the article is published anyhow because in scientific matters the important thing is what is said, and not who said it.

Section I—Wells Drilled With the Thought

Comment

Such wells will include, for example, steam jet wells, which would be drilled through the Greenland ice cap seeking seepage oil which escaped from the tertiary deposits underlying the ice cap and then migrated to the apex of a drumlin where the said oil would be retained by the ice. Another example would be a well drilled on the flanks of Mount Vesuvius, seeking chemically formed cavities in the Sorrento limestone. The cavities would have become filled with hydrocarbon products resulting from the reaction of volcanic ingredients. Another such might be drilled on one of the outlying Hawaiian Islands seeking to penetrate a basalt sill and find oil in the underlying coral limestone.



Section II—Wells Drilled With a Bit

These wells fall rather readily into categories, with the exception of one type which will be treated separately under Subheading 1 hereof.

Subheading 1—Sure-Shot Wildcats

These may be termed Segurocats. In this category fall wells which the uninformed would be inclined to call wildcats, but which in the mind of the operator are really not wildcats at all. Such an operator may be in possession of various scientific information, technical readings, records of various gadgets, which would tell the operator definitely that he is commencing his well directly over a large river of oil. Secondary gadget recordings would also indicate to the operator the depth, quality of oil, future market price, and principal secondary products to be made from the oil. An operator in the possession of such information is, of course, not drilling a wildcat well in the ordinary sense of the word, because he knows he is taking no risk and is sure that he will find oil. Therefore, wells in this category may be treated as Sure-shot Wildcats, or Segurocats, as mentioned above. The Segurocat is included in a classification of wildcat wells solely for the benefit of the supercritical who consider geographical and geological matters important.

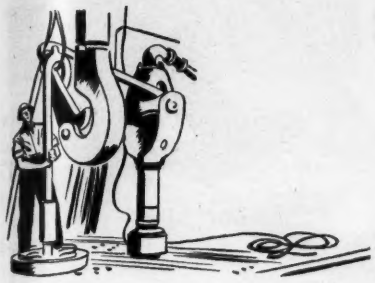
Subheading 2—Telecats

This category commences the primary group of the tertiary subclassification of the dual classification system. The remoteness of this type of wildcat is indicated by its name and includes the type of wildcat which is frequently referred to by the unimaginative as a wild, wild, wild wildcat. The use of the Greek "tele" meaning distant is considered more erudite and therefore more fitting.

Subheading 3—Mesocat

Wells in this category are less wild than the Telecats, but are still pretty wild and it includes wells drilled in areas of known sedimentary rocks in Nevada for example, as opposed to wells drilled in Massachusetts, which, in the opinion of the writer, should be considered Telecats.

It is admittedly difficult to delineate accurately between situations covered by these respective categories, but such uncertainties may be readily dissipated by resorting to the conventional scientific nomenclature rules to define more accurately any given case. If there should be doubt as to whether a given well is a Telecat or a Mesocat, the problem may be solved by the expert opinion of the classifier. If the well appears closer to the Telecat category, such well could be termed a

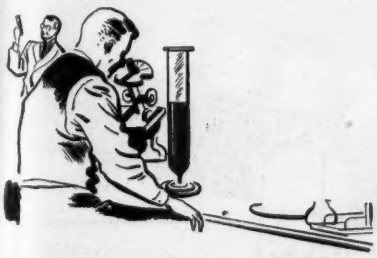


Telemesocat. However, if the case were a few shades closer to the Mesocat category, then the well could be termed a Mesotelecat. This should remove any ambiguity from well classification statistics.

For the serious student who wishes his classification nomenclature to be more definitive, the prefix "ortho" may be used to indicate that the prospecting is by straight hole drilling. This usage is optional. However, the prefix "clino" to indicate slant-hole drilling may be of greater importance. Thus if a well heretofore classed as a Mesotelecat should be prospecting the tidelands by slant-hole drilling, this situation could be made immediately apparent by the term Clinomesotelecat. To give further clarity to the situation, if such be necessary, a qualifying adjective may be added using the Greek words "thalasso" meaning "ocean" and "hypo" meaning "under". Thus, such a slant-hole, tide land test may be termed a Hypothalassic Clinomesotelecat.

Subheading 4—Paracat

The Paracat, as is obvious from the terminology, is closer to production and entails less risk than either of the two preceding categories and might even include the type of wildcat well drilled outside an oil field, which has sometimes been referred to as a new-pool wildcat.

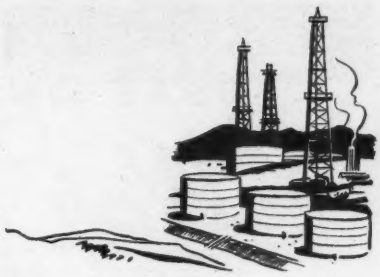


As has been mentioned above with regard to the borderline differences between Telecat and Mesocat, borderline differences will also be found with regard to the classification Paracat. For the careful worker, however, there is no need for indecision in this matter as the intermediate stage between Mesocat and Paracat can be indicated by the terms Paramesocat and Mesoparacat as the case may be. Similarly, borderline cases between the Paracat and the outpost, or oil field, well can be expressed by a definitive nomenclature introducing the term "campo" meaning "field", which will indicate the position of the subject well in the border zone. A well closer to the field may be called a Campoparacat and a well somewhat further removed may be called Paracampocat. In this way it will be possible to file any specific case.

As a working example of the simplicity of this system, let us consider the recently drilled Gilco well, which prospected for oil under the ocean off Seal Beach. This prospect would fall between the Mesocat and the Paracat, but it is in a fairly well-known geological environment, so that Paramesocat would be the correct term. Furthermore, the prospect is being slant hole drilled which is indicated by the term "clino." This then makes the well a Clinoparamesocat. But more can be told. This Clinoparamesocat is prospecting for oil beneath the Pacific Ocean, and it therefore becomes a Hypothalassic Clinoparamesocat.

Subheading 5—Quasicat

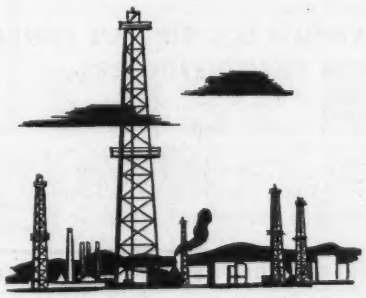
As the name implies, this kind of a wildcat is one concerning the nature of which there is considerable doubt. Great care must be exercised in the classification of wildcat wells otherwise the classifier may fall into the slipshod and unscientific habit of tossing wells into the Quasicat category without sufficient study and attention. Because of the importance of consistency in this matter, such a practice is to be frowned on.



(Historical Note: It is quite possible that the uncertainty of the term "Quasicat" may have led to the origin of the vernacular term "wildcat." A certain amount of research has been done on the etymology and linguistics of oil-field language, and Hegalbein has pointed out the tendency of oil-field characters to shy away from the sound of the Latin "a" in favor of the long English "a" sound. Such a tendency applied to Quasicat will produce the rather whimsical name, "Quaysie cat," which Zurchmann of Zurich has shown is equally offensive to the rather rugged characters of the oil fields. In such circumstances Quasicat would thus become Crazycat from which it is a short step to Madcat and thence to our virile and rugged term Wildcat.)

As hereinabove illustrated and with equal simplicity and if logical and concise use is made of the proposed nomenclature, any wildcat well can be classified, so that the reader may tell at a glance just exactly what type wildcat it is. As a result, clear-cut statistics may be compiled by which exploratory wells throughout the entire world can be readily compared and classified.

It is hoped that this classification will be of value to the petroleum industry.



WAR ON EMULSION IS *a War on Waste*

The war can be lost by unnecessary waste in the oil industry. It can be won on the basis of conservation. With manpower shortages, with material shortages, and with the constantly increasing demand for more oil, we must keep all of the equipment running under the most ideal conditions so that we can produce as much good crude as we can, as quickly as we can. That's where Petreco comes in.

Wet oil takes valuable cargo space in a tanker, reduces the clean oil output through the shipping line, means wasted power and wear on the pumping equipment, wasted storage capacity, wasted manhours in handling. A war on emulsion is a war on waste.

Petreco's unlimited background in handling oil of all types of gravity, viscosity, varying percentages of emulsion, and under varying bottom hole and top hole conditions perhaps will give the answer to your particular emulsion problem. Call us up and let us investigate.

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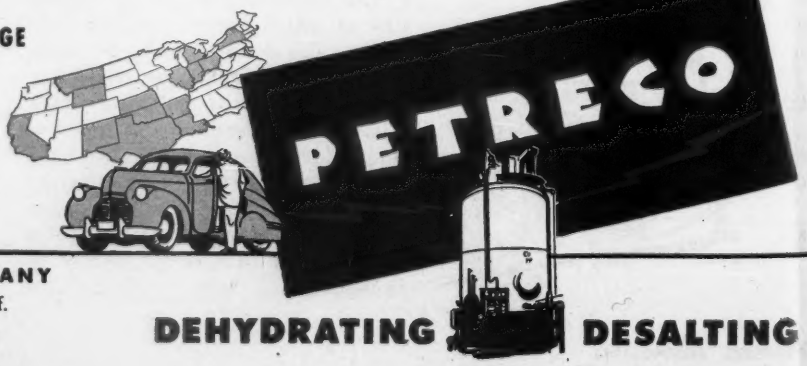
Resident field engineers are located in refining and producing centers wherever Petreco processes are in use. These men are specialists, and are always available to assure maximum operating efficiency, and to give helpful advice and assistance on any problem of dehydration or desalting.



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Representatives in principal production and refining centers

DEHYDRATING DESALTING

THIS LAUGH OFF!!

A rich asbestos manufacturer built a fine house just across the street from the residence of a sweet-spirited old lady and his family proceeded to enjoy themselves in what seemed to her a very worldly fashion.

But the old lady was never known to speak ill of anyone, even when her neighbors played tennis on Sunday. She only said:

"Dear me, they must have great faith in their asbestos."

The curfew tolls the knell of parting day;
A line of cars winds slowly o'er the lea;
A pedestrian plods his absent-minded way
And leaves the world quite unexpectedly.

A private in an Army chapel was seen to bow slightly whenever the name of Satan was mentioned. One day the minister met him and asked him to explain.

"Well," replied the private, "politeness costs nothing — and you never know."

"May I have the last dance with you?"

"Big boy, you just had it."

"Son, fetch the old horse."

"Why the old one, father?"

"My motto is: Wear out the old one first."

"Then you fetch the horse."

A lady tourist was stopped at the border by a customs officer, who inquired the contents of a trunk she carried in the back of her car.

"Oh, that," she replied airily, "that's just some clothes."

Becoming suspicious, the official searched the trunk and found a dozen bottles of brandy.

"Do you call that wearing apparel?"

"Certainly, those are my husband's night-caps."

"Are you still taking those deep-breathing exercises I advised?"

"I've discontinued them for a while. I'm now quartered directly back of the incinerator."

"What kind of a show did papa take you to see while you were in the city?"

"It was a dandy show, mamma, with ladies dressed in stockings clear up to their necks."

"I hear you have an excellent and accomplished wife."

"Accomplished! She is indeed. Why, my friend, she is perfectly at home in literature, at home in music, at home in art, at home in science—in short, at home everywhere except at home."

On the Bulletin Board of a Marine Corps outfit in the South Pacific an eagle-eyed and considerate censor had posted this notice addressed to a Marine private: "Letter at mail desk. Name on envelope Dorothy; name on letter Betty. Check, and if correct, mail."

"What's on the menu tonight?"

"Oh, we've hundreds of things to eat tonight."

"Yeah? What are they?"

"Beans."

When the name of the plaintiff was called out in court, much to everyone's amazement, he stood up in the jury box.

"What are you doing there?" snapped the clerk.

"I was called to serve on the jury," was the meek reply.

"But you must have known you couldn't sit on a jury and try your own case?"

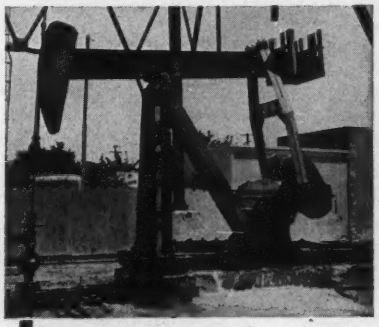
"I suppose not," admitted the plaintiff ruefully. "I did think it was a bit of luck."

"Is Betty as pretty as she used to be?"

"Yes, but it takes her longer."

"Will you marry me if I have my health rejuvenated?" asked the millionaire octogenarian.

"I'll marry you, all right," said the sweet young thing, "but you leave your health the way it is."



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Barrel by barrel, for 25 years, we have learned how to make JENSEN pumping equipment more efficient, more economical, more dependable.

After millions of barrels we can say to you without hesitation that a JENSEN Unit is likely to make any well more profitable. Ask Mr. Turner or The Oil Tool Corporation. They can give you some really interesting information about what JENSEN Units are doing for other California producers.

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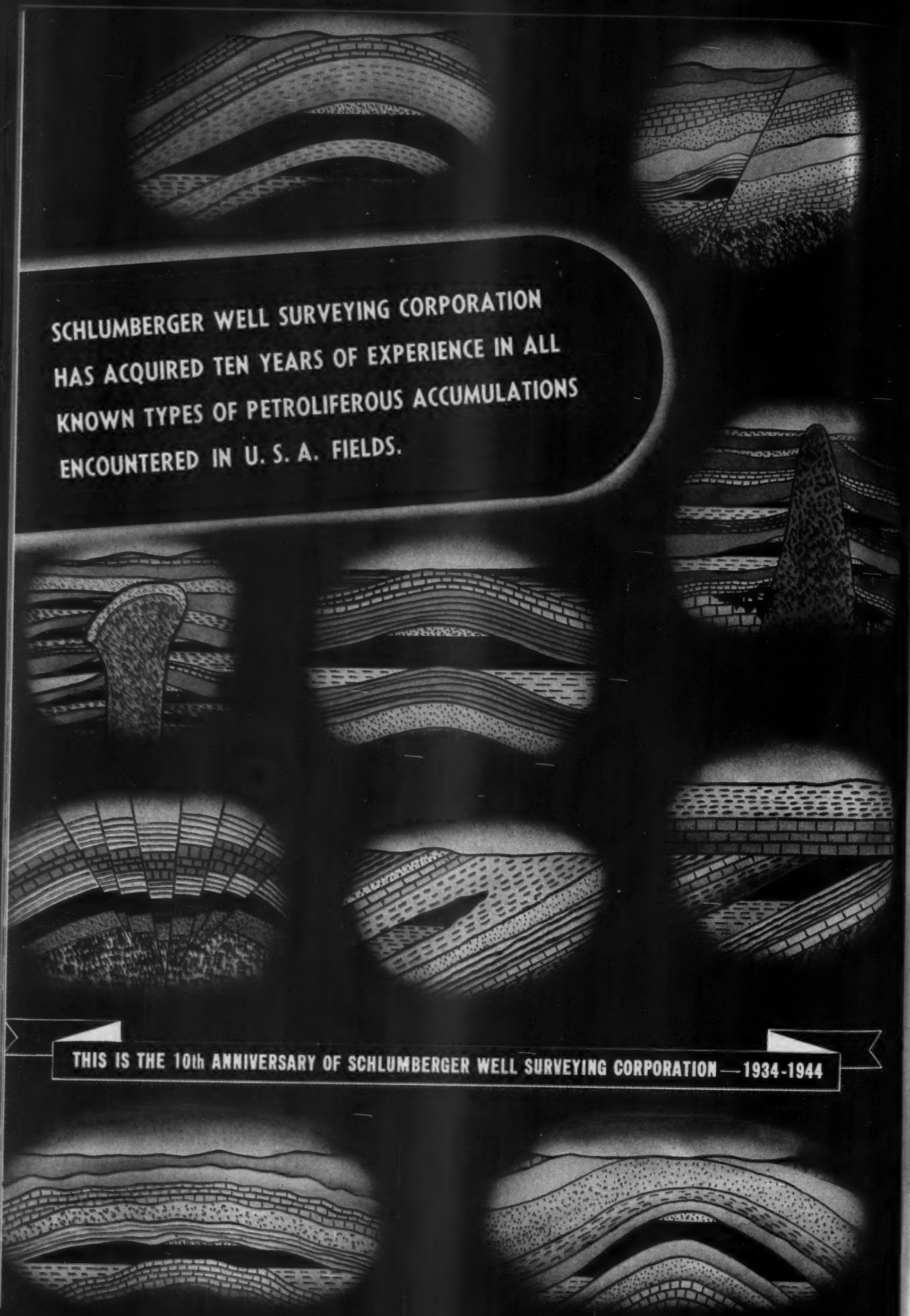
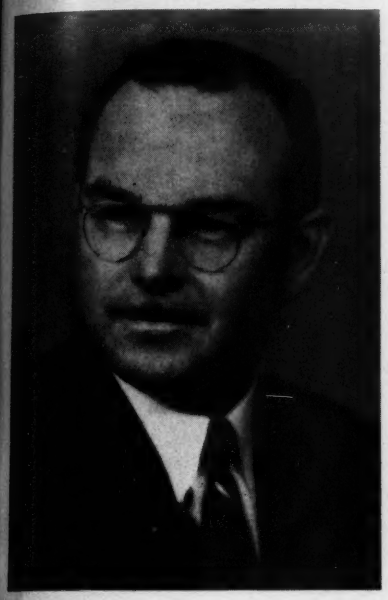

SCHLUMBERGER WELL SURVEYING CORPORATION
HAS ACQUIRED TEN YEARS OF EXPERIENCE IN ALL
KNOWN TYPES OF PETROLIFEROUS ACCUMULATIONS
ENCOUNTERED IN U. S. A. FIELDS.
THIS IS THE 10th ANNIVERSARY OF SCHLUMBERGER WELL SURVEYING CORPORATION — 1934-1944

Roy Wm. Carver Enters Private Business

Roy Wm. Carver, well-known California oil executive, for the last fifteen years associated with the Rio



Roy Wm. Carver

Grande and Richfield Companies, and since the organization of the new Richfield Corporation in 1937, Manager of that company's Land and Lease Department, has announced his resignation effective July 1, to enter private business.

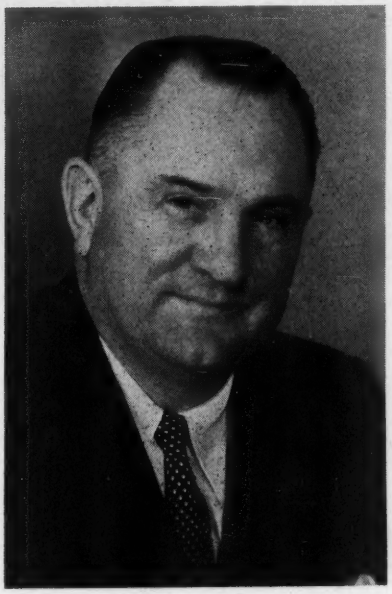
Carver is one of the best-known land and lease men in the California industry. Following his graduation from Stanford University and return from European service in World War I, he was associated with the land departments of the Superior and Getty organizations before joining Rio Grande in 1929. As a result of these associations he has been closely identified with the discovery of a number of important oil fields and with the growth of some of our most important producing companies, his experience having extended into the several western states, including Montana, New Mexico and Texas.

His multitude of friends in the industry and his associates in Richfield join in wishing him success in his new enterprise. His plans for the immediate future have not been announced.

Kobe Announces Executive Changes

C. J. Coberly, President of Kobe, Incorporated, has just announced changes in executive positions in keeping with the enlarged facilities and expanding activities of the company: A. M. Smith has been appointed to the new position of production manager; W. C. Marston continues as assistant treasurer, H. K. Browning as general sales manager and R. F. McArthur as chief engineer.

Mr. Smith's new appointment places him in charge of all manufacturing activities and effects a con-



A. M. Smith

solidation of these interests involving the company's hydraulic pumping equipment, pipe perforating, precision gage and ordnance divisions.

F. E. Rehm Elected Vice-President Shell Oil Co.

Announcement of the election of F. E. Rehm as a Vice-President of Shell Oil Company, Incorporated was made by S. Belither, Chairman of the Board, on July 15th.

Mr. Rehm joined the Shell organization in 1916 in Ventura, California. He has served in the Production Department, becoming Production Manager in 1935. He was named head of the oil company's Industrial Relations Department, San Francisco, in 1938.

Since July, 1942, Mr. Rehm has been Manager of the Industrial Relations and Personnel Department. He will continue in charge of that department, in addition to his du-

Frank E. Rehm

ties as an officer of the corporation, Mr. Belither said.

Mr. Rehm is a graduate of Leland Stanford University, class of 1915. He was active in football and crew. Married, Mr. Rehm has two children, a daughter, and a son who is an Ensign in Naval Aviation.

Headquarters of the new Vice-President will be in San Francisco, company officials stated.

Haws Elected President of IAASC

At its annual election of officers, the Industrial Advertising Association of Southern California elected R. Calvert Haws, advertising manager of Western Precipitation Corporation, as its president for the coming year. Mr. Haws has had wide experience in industrial advertising work and has played an important part in the development of the Industrial Advertising Association to its present widespread membership and activities, including many members from petroleum marketing groups.

Other officers elected at the meeting include: Roy N. Phelan, Vice-President; Jack Hodges, Secretary-Treasurer.

Death Takes Edmund H. Lunken

Edmund H. Lunken, Chairman of the Board of The Lunkenheimer Company, Cincinnati, Ohio, valve manufacturers, died Wednesday, July 19, at his summer home in Michigan, as the result of a cerebral hemorrhage.

Mr. Lunken, who was 83 years old, had been active and in good health until last winter, when he suffered an attack of influenza.

The son of Frederick Lunkenheimer, founder of The Lunkenheimer Company, he was born in Cincinnati and educated in the Cincinnati schools. At the age of 16 he entered his father's business, which had been established in 1862. Upon the death of his father in 1889, he assumed leadership of the company and remained its senior officer until his death. In 1892, he legally changed his surname to Lunken, but did not change the name of the company.

In September, 1928, realizing Cincinnati's need for a municipal airport, Mr. Lunken purchased 204 acres in the Little Miami River Valley and donated this ground to the city for airport purposes. Around this nucleus the present Lunken Airport was built.

Victor Opens New Oakland Store

Victor Equipment Company, with plant and executive offices at 844 Folsom Street, San Francisco 7, announces the opening of its Oakland sales and service store as of September 1, 1944.

The great industrial progress made by East Bay cities has made this retail store a long-desired necessity. While the company continues to make bulk deliveries directly from San Francisco, this newly-opened store facilitates emergency shipments and repair services. It will also be a great convenience to East Bay purchasers in the personal selection of gas and electric welding equipment and supplies.

Victor's new Oakland store, to be opened September 1, is conveniently located at 312 12th Street (Zone 7). E. L. Russell, veteran Victor service engineer, has been named branch manager.

Pierre L. Lacombe Passes Away

Pierre L. Lacombe, 54, Assistant Vice President of Tide Water Associated Oil Company, passed away recently in San Francisco after a brief illness.

A pioneer oil man, Mr. Lacombe had been with Associated for 26 years, starting January 17, 1919 as a special accountant. He also served as income tax accountant, acting auditor, auditor, and manager of the finance division before assuming the duties of Assistant Vice President.

Mr. Lacombe was a member of an early California family, his father having been born in San Francisco in 1850. His brother, the late Right Rev. Monsignor George L. Lacombe was widely known as chaplain of the 347th Field Artillery during the first world war. Two of Pierre Lacombe's sons, Sergeant John A. and Lieutenant Peter L. Lacombe, are serving their country in the present war.

Southern California Meter Association

The Southern California Meter Association's July meeting was held at the Rio Hondo Country Club, July 20, 1944.

Mr. J. T. Cortelyou, from the Southern California Gas Company and past president of the Association, presented a paper reviewing the Association's Meter Course. This paper, Publication No. 17, covered the fundamentals of measurement and summarized all of the papers presented during the past year, which make up the Association's Meter Course.

Several ladies were present to make the "Ladies' Night" a success and joined in the balance of the program—questioning of the Panel of Experts in an "Information Please" type of entertainment. Free beer was awarded to all of those whose questions were not satisfactorily answered by the experts.

The next regular meeting of the Association will be held at the Rio Hondo Country Club, Downey, at 6:30 p.m., Thursday, August 17, 1944.

"Appreciation of Measurement and Control in the Manufacture of Synthetic Rubber" is a subject to be presented by Mr. H. R. Erwin, Assistant Technical Superintendent of Goodyear Synthetic Rubber Corporation. Mr. Erwin will describe the important place measurement and control have in this industry, which has seen such rapid development in recent years. This subject should be of real interest to all as a specific example of the application of instruments for measurements and control of all types of fluids.

Following Mr. Erwin, a sound motion picture on synthetic rubber will be shown. This movie, made by the Bureau of Mines in cooperation with Goodyear, traces the manufacture and production methods of synthetic rubber from 1892 to the present date and shows the many uses made of synthetic rubber.

All those interested are urged to attend.

A. P. I. Cancels Annual Meeting

Announcement was made recently that the Executive Committee of the American Petroleum Institute had approved a recommendation of the organization's President William R. Boyd, Jr., to defer indefinitely the Twenty-fifth Annual Meeting scheduled to be held in Chicago, November 13-16 next.

President Boyd's recommendation and the committee's action was prompted by the urgent request of Director J. M. Johnson of the Office of Defense Transportation that all conventions planned during the remaining months of 1944 be cancelled in the interest of wartime transportation, Director Johnson having asked that this be done even at the sacrifice of each organization's need for wartime conference and postwar planning.

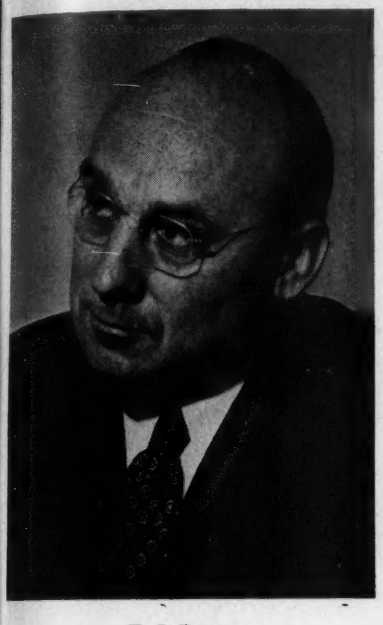
Providence Abandons Placentia Test

Approximately ½ mile west from the town of Placentia, the Providence Oil Co. Chapman No. 1, has been abandoned. Located in section 36-3s-10w, the hole was bottomed in hard conglomerate at the total depth of 5000 ft. There were no showings of any commercial value found no tests were made.

On the southwesterly flank of the

Axelson Announces Executive Changes

The Axelson Manufacturing Company, pioneer Los Angeles equipment producer, announces through General Sales Manager Alvin "Dutch" Zwerneman, the permanent appointments of K. S. Ramey and J. R. Walker to the management of the California and Mid-Continent sales divisions respectively. These appointments have been held by Ramey and Walker for some time on a temporary basis, pending this confirmation.



K. S. Ramey

Ken Ramey, who started with the Axelson sales department at Coalinga in 1923, has won many friends for the Company throughout the California petroleum industry. Handling the Santa Fe Springs district until a year ago when he became temporary California sales manager, Ramey's confirmation comes as a well deserved reward for 21 years of service in the interests of Axelson's petroleum equipment.

Also joining the Axelson organization in 1923, Jeff Walker has gained wide experience in the Axelson California, Rocky Mountain, Eastern and Mid-Continent sales divisions. Twenty-one years devoted to the sales of Axelson pumps and sucker rods have given Walker the background and knowledge necessary to handle the management of an area as large as the Mid-Continent division.

J. R. Walker

G. P. Recompletes In Meyer Zone

In the Santa Fe Springs field, the General Pet. Corp. Santa Fe No. 37, has been recompleted from the Meyer zone. Located southeast from the intersection of Third st. and Butler Road, the hole was plugged back from the original depth of 4740 ft. and redrilled to the new total depth of 3775 ft. A string of 6⅝ inch casing was cemented on bottom and gunperforated in the upper portion of the Meyer zone between the depths of 3612 ft. and 3590 ft. On the pump, the well is producing 110 barrels per day of 32 gravity oil with a gross cut of 76 per cent.

Shell Testing MCGrath Zone

Northeast of the fault, on the easterly side of the Seal Beach field, the Shell Oil Co. is preparing to make a production test of the McGrath zone in Byrant No. 5 The hole is bottomed in shale with streaks of oil sand at the depth of 7848 ft. and a string of seven inch casing cemented over the oil sand at 6860 ft. The hole is now being cleaned out preparatory to placing the well on production. A farther look along the fault line finds the Hellman Estate Co. drilling ahead 7800 ft. in well No. 8, the Standard Oil Co. spot coring San Gabriel No. 29, below 3500 ft. and the Tide Water Asso. Oil Co. Bryant No. 2-23, drilling ahead after setting a string of surface casing. On the westerly flank of the field, the Capital Co. is rigging up on their McGrath zone test Capital No. 18-1.

P.A.W. Appoints Manpower Representative

Deputy Petroleum Administrator for War Ralph K. Davies has announced the appointment of area representatives to aid the petroleum industry on manpower priority problems in its essential activities. This is in keeping with the War Manpower Commission's Priority Referral Program which became effective July 1.

Representatives have been appointed in each of the five P.A.W. areas, and the P.A.W. manpower representative for District 5 is Ray W. Varnum, 855 Subway Terminal Building, 417 South Hill Street, Los Angeles. Mr. Davies urged oil operators to consult with the P.A.W. representative on the establishment of manpower ceilings and manpower referral priorities for their essential activities.

Natural Gas Terminology

(Continued from Page 7)

23. STANDARD CUBIC FOOT: A Standard Cubic Foot of Gas is that quantity of gas which occupies One Cubic Foot at standard conditions, i.e., at a temperature of 60° Fahrenheit and an absolute pressure of 14.73 lbs. per square inch.
24. M. C. F.: 1-000 Standard Cubic Feet.

Have for lease or for sale 160 acres or more in Section 19, Township 32, Range 27, Kern County. Address inquiries to John Longwill, 201 Sansome St., San Francisco, Calif. Telephone DOuglas 5855 8/5b

Field Development

Los Angeles Basin

Nordenholt Well Flows

Near the easterly limits of the city of Redondo, Geo. D. Nordenholt Rico No. 3, blew out and for several hours flowed at the rate of 1440 barrels per day. The well was brought under control and is currently flowing 245 barrels per day of 26 gravity clean oil through an 18/64 inch bean with 450 pounds tubing pressure and 700 pounds casing pressure. The gas production is estimated at 300,000 cubic ft. per day. Located on the southwest corner of Susana and Ruby Sts., the hole was bottomed in rotten brown shale, showing oil, at the depth of 3440 ft. A string of seven inch casing was cemented at 2785 ft. and a 4¾ inch perforated liner landed at 3430 ft. This liner was conventionally packed in an 11 inch hole with 400 cubic ft. of gravel. The well has taken in approximately 180 ft. more zone than nearby offsetting wells. To the east of this well Harold C. Morton and H. S. Kohlbush have staked locations for Del Amo Nos. 1 and 3. Operations will start on the first of these projects as soon as the rig, which is currently drilling a well in Huntington Beach is free. To the north several new wells and several deepening and reconditioning jobs are planned for the near future.

Wildcat Testing

Approximately one mile northwest of the town of Buena Park, the General Pet. Corp. is making a series of production tests in Heath No. 1. Located near the northeast corner of section 34-3s-11w, the hole is bottomed in volcanic rocks at the total depth of 11,422 ft. Considerable hard tight oil sand was cored between the depths of 11,000 ft. and 11,200 ft. The hole has now been plugged to 11,200 ft. and a string of 5½ inch casing cemented at 11,000 ft. At this writing the operator is conditioning the hole preparatory to making a production test of the upper portion of the zone.

Del Valle Outpost

Approximately one mile south of the Del Valle field, the British-American Oil Prod. Co. and The Texas Co. have joined forces and are preparing to drill Newhall Land and Farming No. 1. The well which has 10,000 ft. as the objective depth, is located 620 ft. north and 1400 ft. west from the southwest corner lot No. 12 of Rancho San Francisco. This location places the well in section 21-4n-17w, midway between the producing limits of the Newhall Potrero field and the Del Valle field.

Imperial "Cat" Abandoned

In the Salton Sea area of Imperial county, the Pure Oil Co. has abandoned Truckhaven Unit No. 1. Located in section 26-10s-9e, the hole was drilled and cored to the total depth of 6100 ft. where the bottom was in igneous rocks. Several formation tests were made of gas showings found below 3900 ft. In all

LOS ANGELES BASIN WILDCATS

Area	Well	No.	Section	Depth	Status
Athens	J. Paul Getty, Westmore	1	2, 3-14	9109	Completed
Aliso Canyon	Standard Oil Co., Del Aliso	1	29, 3-16	1380	Drilling
	Standard Oil Co., Ward	3-1	27, 3-16	2460	Drilling
Bandini	Hathaway Co., Rossi	1	22, 2-12		Rigging up
Dominguez	Macmillan Pet. Corp., Carson	1	35, 3-13	8466	Abandoned
El Segundo	Pauley, H. R. & E. W., Loftus	1	11, 3-15	7356	Swabbing
	Richfield Oil Corp., Lenzinger	1	8, 3-14		Location
Hasley Canyon	Shell Oil Co., Claiborne	88-4	4, 4-17	3280	Drilling
Inglewood	Shield Pet. Co., Well	1	18, 2-14	3608	Abandoned
Las Llajas	Standard Oil Co., Brady Est.	2-1		1806	Drilling
Newhall	British-Am. & The Texas Co., NLF	1	21, 4-17		Grading
Pico Canyon	Standard Oil Co., Pico Co.	42	1, 3-17		Rigging up
Puente	Alleghany Pet. Co., Rowland	1	14, 2-10	550	Drilling
	Hansen, Melvin, Corehole	3	24, 2-10	1900	Testing
Rosecrans	Standard Oil Co., Bell Comm.	1	29, 3-13	9134	Abandoned
Turnbull Canyon	Capital Co., Cole	2-2	11, 2-11	1145	Drilling
	Capital Co., Cole	3-1	11, 2s-11w	2765	Drilling
Whittier	Mayo Oil Co., Grey	1	17, 2-11		Rigging up
	Orange County				
Bolsa Chica	Standard Oil Co., Lomita-Sunset	1	29, 5-11		Rigging up
Buena Park	Gen. Pet. Corp., Heath	1	34, 3-11	11422	Testing
Costa Mesa	Lovelady & Frambes, Destiny	1	9, 6-10	1822	Abandoning
E. Coyote	Barnsdall Oil Co., Sunny Hills	2	22, 3-10		Rigging up
Placentia	Providence Oil Co., Chapman	1	36, 3-10	5000	Abandoned
	San Bernardino County				
Chino Hills	Chino Hills Oil Co., Kraemer	1	33, 2-8	2094	Drilling
Hesperia	Salter, Lee, Well	1	34, 4-5	500	Drilling
Chino Area	Wm. Y. Lee, Corehole	2	21, 2-8	3010	Idle
	San Diego County				
Waterman Cyn.	La Jolla Pet. Co., Well	1	32, 15-3		Rig
	Imperial County				
Salton Sea	O'Quinn & Hadley, All Am. Acres Comm.	1	11, 9-12	1160	Idle
	Pure Oil Co., Truckhaven Unit	1	26, 10-9	6100	Abandoned
	Standard Oil Co., Southern Land Co.	1	27, 11-9	4531	Abandoned

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tests, the fluid recovered, consisted of brackish muddy water with only minor showings of gas. The top of the basement rock was found at 6040 ft.

Standard Spuds Sunset Beach Test

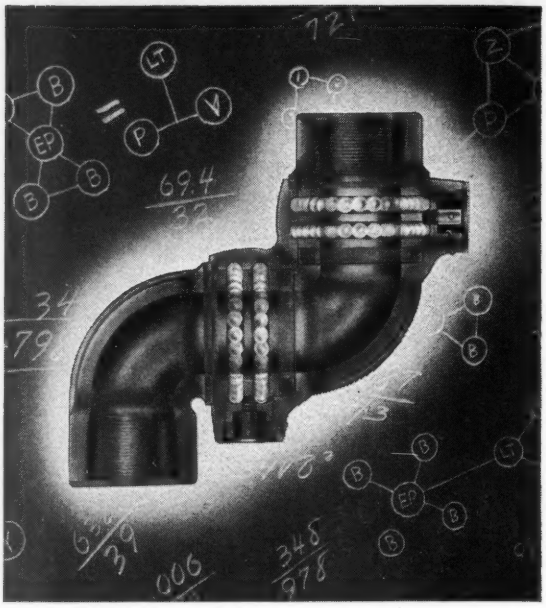
In the northeast quarter of section 29-5s-11w, west of the Bolsa Gun Club, the Standard Oil Co. Lomita-Sunset Comm. No. 1, is drilling ahead below 1000 ft. after setting 11¾ inch surface casing at 409 ft. The hole will test sands which were produced for a short time in wells drilled by the operator about 20 years ago. One of these wells is reported to have produced approximately 20,000 barrels of oil before water trouble forced the abandonment of the hole. The present hole is located only 100 ft. north of the old well which produced from the depth of 5166 ft.

Deep Test Spudded

At the scene of some of the oldest drilling in the state of California, the Standard Oil Co. has spudded P.C.O. No. 42. Located in the east end of the Pico Canyon field, which was first discovered back in 1879, the well will explore below the known producing horizons of the field.

Tideland Completion

In the Tideland pool offshore from the Huntington Beach field, The Huntington State Co. No. 12, has been completed. Drilled and cored to a depth of 4017 ft., a string of 8⅝ inch casing was cemented at 2845 ft. and a 6⅝ inch liner including 1079 ft. perforated landed at 4014 ft. On the initial gauge the well flowed at the rate of 1200 barrels per day of 17 gravity clean oil through a 64/64 inch bean. With the bean reduced to a 22/64 inch, the well is currently flowing 417 barrels per day with 110 pounds tubing pressure and 710 pounds casing pressure. The operator is rigging up on State No. 14, which is located 124 ft. southerly and 219 ft. westerly from the centerlines of 20th Street and Ocean Ave.



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New Zone Discovery

In the Rio Vista gas field, near the southwest corner of section 36-4n-2e, the Standard Oil Co. has apparently discovered a new deep gas zone in Perry Anderson No. H-6. The hole was drilled and cored to the total depth of 5856 ft. where a string of 5½-inch casing was cemented and is now being tested prior to gun perforating the zone and placing the well on production. The new zone was found between the depths of 5760 ft. and 5805 ft. and on an open hole formation test showed a blow of 14,000 MCF per day rate. Southeast from this well, in section 6-3n-3e, Peter Cook Jr. has completed Peter Cook No. 5, for an initial rate of 30,000 MCF per day. The hole was drilled to a depth of 4328 ft. where a combination string of 5½-inch casing including 408 ft. perforated was landed and cemented perforations at 3852 ft.

Amerada Completes Thornton Gasser

In the Thornton area of Sacramento county, approximately five miles west from the town of Galt, the Amerada Pet. Corp. has completed Capital No. 2. Located near the southeast corner of section 27-5n-5e, the hole was drilled to the total depth of 3333 ft. A combination string of 5½-inch casing was landed on bottom and cemented through perforations at 3274 ft. The well was only allowed to blow long enough to clean itself and was then shut in, making it difficult to get an accurate estimate of the gas rate. However the shut in pressures, which are equalized at 1380 pounds, seem to indicate a substantial producer.

Standard Abandons Fillmore Deep Test

Approximately one mile northwest from the town of Fillmore, the Standard Oil Co. has abandoned Fillmore Comm. No. 2-1. Located in section 24-4n-20e, the hole was junked after reaching the depth of 14,512 ft. All attempts to recover the drillpipe which froze at 12,862 ft. failed, as circulation could not be established. Drilled as a restricted well, the operator has not as yet, released any information on the section penetrated in the hole.

Union Stakes Adams Outpost

Location is being graded by the Union Oil Co. for Adams No. 1, outpost well on the southwesterly flank of the old Adams Canyon field. Located in section 19-4n-21w, the well is being drilled to explore the Repetto formation below the known producing horizons in the field.

Anderson in Sisquoc

In the Los Alamos Area of Santa Barbara county, Archambeault No. 2, joint test of J. I. Anderson and the Southern Calif. Pet. Corp. is drilling and spot coring ahead in Sisquoc shale below 3600 ft. The well is located in section 3-7n-32w, approximately 800 ft. south of the operators recently abandoned Archambeault No. 1, which found considerable oil in the fractured Monterey Chert zone.

Cat Canyon Test Fishing

In section 10-8n-33w, southwest of the Cat Canyon field, the Richfield Oil Corp. is fishing for drill pipe in Los Flores No. 1. Two attempts were made to test heavy oil showings in fractured Monterey Chert between the depths of 6091 ft. and 6660 ft., both were mechanical failures with the tester plugging on the first and the packer failing on the second test. The present depth of the hole, where the drill pipe is stuck is 6676 ft.

State Seeks Drilling Bids

The California State Land Commission is preparing to offer a parcel of State Tidelands in the Gaviota area of Santa Barbara county for development bids. The acreage to be offered centers on the recently lo-

COASTAL COUNTIES WILDCATS

Area	Well	No.	Section	Depth	Status
	Santa Barbara County				
Cat Canyon	Richfield Oil Corp., Los Flores	1	10, 8-33	6676	Fishing D.P.
E. Cat Canyon	Union Oil Co., McNee, C. H.	3	20, 9-32		Rigging up
	Union Oil Co., McCroskey, C. H.	1	20, 9-32	4600	Pumping
Gaviota	Standard Oil Co., Hollister	1	35, 5-33		Rig
Lompoc	S. R. Williams, Fickert	1	8, 7-33	3446	Idle
Los Alamos	J. I. Anderson & So. Calif. Pet. Corp., Archambeault	2	3, 7-32	3590	Drilling
Los Olivos	Hub Oil Co., La Laguna	1	7, 7-30	3580	Cleaning out
Purisima	Whittier Assoc., Barham	2	11, 7-32	2724	Pumping
	Ventura County				
Eureka Canyon	El Rika Oil Co., Well	7	33, 4-18		Location
Ex-Mission	Union Oil Co., Adams	41	19, 4-21		Grading
Fillmore	Standard O. Co., Fillmore Comm.	2-1	24, 4-20	14512	Suspended
Piru	Delroy Pet. Corp., Lisk	3	22, 5-18	3149	Idle
	Standard Oil Co., Bowman	2-1	14, 4-18	7340	Drilling
Sespe	Volunteer Pet. Co., Tar Creek	3	28, 5-19	2245	Drilling
	Merchants Pet. Co., Well	9	1, 4-20		Rig
South Mt.	Pac. West. O. Corp., M. Richardson	1	24, 3-21	4850	Pumping
	Pac. West. O. Corp., Yale	1	13, 3-21		Foundation
	Wilshire Oil Co., Petit	2	16, 3-20		Foundation
Timber Canyon	Hickey, Noble J. Temple	1	22, 4-21	656	Prep. to resume
	San Luis Obispo County				
Arroyo Grande	McDuffie, Wm. C. Adams	1	31, 31-13	311	Drilling

NORTHERN COUNTIES WILDCATS

County	Well	No.	Section	Depth	Status
Butte	Richfield Oil Corp., Hamilton-Nord	1	9, 22n-1w		Rigging up
Colusa	Standard Oil Co., Princeton	1	24, 18n-2w	5198	Drilling
	Union & Gen. Pet. Corp., Capital	2	27, 16n-1w	2600	Abandoned
Sacramento	Amerada Pet. Corp., Capital Co.	2	2, 6n-2e	3333	Completed
San Benito	Panoche Pet. Co., Panoche	1	24, 16s-10e	765	Fishing
San Mateo	Richfield Oil Corp., Lena Souza	1	13, 7s-5w	3595	Drilling
Solano	Amerada Pet. Corp., Starkey Fee	1	2, 6s-2e	9434	"No Dope" Well
	Standard Oil Co., Suisun	3	5, 3n-1w	4603	Drilling
	Standard Oil Co., Fontana	1	23, 3n-1w	7101	Drilling
Tehama	Richfield Oil Corp., Gallitan	1A	26, 25n-3w	4110	Abandoned
	Superior Oil Co., Saldubehere	1	12, 24s-3w	6658	Drilling
	The Texas Co., Jelly-Bend	18-8	8, 29n-2w		Rigging up

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cated Standard Oil Co. Hollister Estate No. 1, the derrick for which has been erected on section 35-5n-33w. The property offered runs for a distance of ¼ mile along the mean high tide line and then seaward a distance of one mile.

Union Stakes Santa Maria "Cat"

The Union Oil Co. has staked location for Santa Maria No. 1, a wildcat test southeast of the Santa Maria Valley field. Located near the center of section 10-9n-33w, southwest of the town of Garey, the well will test the tar sands found in the Standard Oil Co. South Basin Lloyd No. 1, approximately one half mile to the south.

Whittier Pumping Los Alamos "Cat"

In the Purisima Hills-Los Almos area of Santa Barbara county, the Whittier Associates have placed Barham No. 2, on the pump. Located in section 11-7n-32w, the hole was drilled to the total depth of 2724 ft. where the bottom is in Monterey brown shale. A string of seven inch casing was cemented at 2363 ft. and a 5½ inch perforated liner landed at 2724 ft. On the pump the well is producing 27 barrels per day of gross fluid which to date has consisted mostly of mud and wash oil. Approximately 1200 ft. northwest from this well the operators Barham No. 1, was last reported pumping 15 barrels per day of 14 gravity oil cutting 15 per cent water and mud.

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San Joaquin Valley

Buena Vista Completions

Northwest of the main deep zone development in the Buena Vista Hills field, the Standard Oil Co. well No. 83-29B, found only gray sand in the 27B zone and was plugged back and completed from the Calitroleum zone for an initial production of 540 barrels per day of 25 gravity oil cutting 0.1 per cent, flowing through a 14/64 inch bean with 106 MCF of gas. Located near the east ¼ corner of section 29-31s-23e, the hole was bottomed in gray sand at the depth of 4550 and plugged back to the base of the lower Calitroleum sand at 3445 ft. A string of 6⅝ inch casing was cemented at 3315 ft. and a 4¾ inch liner including 70 ft. perforated landed at 3440 ft. Southeast from this well, in section 35-31s-23e, the Standard Oil Co. completed well No. 321-35B, for an initial production of 735 barrels per day flowing through a 20/64 inch bean. With the bean reduced to a 13/64 inch, the well is currently flowing 298 barrels per day of 30 gravity oil cutting 0.5 per cent, with 425 pounds flow pressure. The production is coming from the 27B zone between the depths of 3890 ft. and 3965 ft. To the west, on section 35, the Tide Water Assoc. Oil Co. well No. 61K, has been completed from the 27B zone for an initial rate of 1560 barrels per day flowing through a 35/64 inch bean. Drilled and cored to the total depth of 4380 ft., the well found the top of the Calitroleum sand at 3588 ft. and the top of the 27B sand at 4355 ft. A string of seven inch casing was cemented at 4306 ft. and a 5½ inch liner, including 25 ft. perforated landed at 4379 ft.

Ohio Completes Paloma Outpost

On the northwesterly flank of the Paloma field, the Ohio Oil Co. has completed KCL-A No. 11, for an initial production of 850 barrels per day. Located in the northeast ¼ of section 32-31s-26e, the hole was bottomed in shale at the total depth of 10,803 ft. after finding the top of the Paloma sand at 10,330 ft. A string of seven inch casing was cemented on bottom and gun perforated in seven stages between the depths of 10,330 ft. and 10,800 ft. With the bean reduced to a 14/64 inch, the well is currently producing 393 barrels per day of 50 gravity oil cutting 0.2 per cent with 2975 pounds tubing pressure and 3250 pounds casing pressure. The gas production is metered at 2500 MCF per day. Northeast of this well, near the north ¼ corner of the section, the operator is preparing to spud in on well No. 12. The Western Gulf Oil Co. has also completed a good producer in this field. Paloma Unit No. 11-2, located in section 2-32s-26e, was drilled to the total depth of 10,790 ft. and on the initial gauge showed 1223 barrels of 53 gravity oil, flowing through a 20/64 inch bean with 3150 pounds tubing pressure and 3125 pounds casing pressure. Gas production 7418 MCF. At present the well is flowing 590 barrels per day of 51.5 gravity clean oil through a 12/64 inch bean with both the tubing and casing pressures equalized at 3300 pounds. The gas production was metered at 3464 MCF.

Barnsdall Stakes East Side "Cats"

The Barnsdall Oil Co. has announced locations for two wildcat

SAN JOAQUIN VALLEY WILDCATS

Area	Well	No.	Section	Depth	Status
	Fresno County				
Burrel	General Pet. Corp., Cryan	1-32	32, 16-19		Rig
Cantua	Seaboard-Pure Oil Co., Well	54-22	22, 16-13	5600	Drilling
Jacalitos	The Texas Co., Hawxhurst	1-6	6, 22-16		Location
San Joaquin	Superior Oil Co., Brackney	68-30	30, 15-17	2780	Drilling
S. E. Helm	Amerada Pet. Corp., Calif. Lands	76-15	15, 17-18		Rigging up
Tranquility	Standard Oil Co., Patterson	74	3, 16-14		Location
	Kern County				
Ant Hill	Amerada Pet. Corp.,Ant Hill,S.P.	36-15	15, 29-29	2225	Completed
Arvin	Continental Oil Co., Derby	1	35, 31-29	7730	Drilling
Devils Den	C.C.M.O. Co., Bates	2	20, 25-19	500	Drilling
	Hillview Oil Co., Well	1	11, 25-18		Rigging up
	DeKalb & Foster, Le Baron	5	24, 25-18	1315	Idle
Fruitvale	General Pet. Corp., KCL	76-29	29, 29-27		Bldg. rig
Gosford	T. W. A. Oil Co., KCL	44-22	22, 30-26	8152	Rigging pump
	T. W. A. Oil Co., KCL	66-22	22, 30-26		Rigging up
McKittrick	Americal Pet. Corp., Americal	1	2, 30-31	5450	Redrilling
	MacDonald-Burns & Norris, Flickinger	1	36, 30-22		Rigging up
	Standard Oil Co., McPhee	2-1	36, 29-21	443	Drilling
Lost Hills	Standard Oil Co., Cahn	58-4	4, 27-21		Foundation
McVan	Butler Bros., Well	2	14, 27-27		Rig
	Morrison, B. C., Well	1	4, 27-27	4893	Drilling
Midway	C.C.M.O. Co., Well	G-3	20, 32-33		Rig
	Std. Oil Co., Ethel D. S.	1	36, 12-24	8647	Abandoned
Mt. Poso	Anderson, Giffen & Anderson, Durnal	1	24, 27-28	785	Abandoned
	Barnsdall Oil Co., Fitzhugh	1	32, 27-28		Grade
Poso Creek	Independent Expl. Co., Conoco	43	33, 27-27		Location
Premier	Marion, J. H. Austin	1	28, 28-27	2824	Drilling
Rosedale	Western Gulf Oil Co., KCL-A	37-14	14, 29-26	10761	Abandoned
Round Mt.	Barnsdall Oil Co., Barlow	1	24, 28-28		Location
	Signal Pet. Co., Russell	1	26, 28-29	1550	Abandoned
	U. S. Drilling Co., S.P.	3	23, 28-28	367	Drilling
Semitropic	Standard Oil Co., Fullerton	1	25, 27-23	11077	Drilling
Shafter	T.W.A. Oil Co., Shafter Comm.	86A-7	7, 28-25	11660	Drilling
So. Beldrige	Bandini Pet. Co., Bacon	1	27, 28-20	7160	Drilling
Strand	Standard Oil Co., Robbins	45-35	35, 29-26	7746	Drilling
	Standard Oil Co., Brittain	61-2	2, 30-26	4520	Drilling
	Superior Oil Co., Houghton	56-35	35, 29-26	7430	Drilling
Stockdale	W.G.O. Co., KCL	77-5	5, 30-27	9680	Drilling
Sunset	T. W. A. Co., McBean	86-36	36, 12-23	1996	Drilling
Tejon	Reserve Oil and Gas Co., Well	33-7	33, 11-19		Rigging up
	Richfield Oil Corp., S. P. 10	15-15	15, 11-19	3112	Drilling
Trico	Magee, H. H., Opr., Amal-Happold	2	15, 25-24	2314	Drilling
	Kings County				
Alpaugh	Standard Oil Co., Von Glahn	1	34, 23-22	4593	Abandoned
	Standard Oil Co., Cutter	1	29, 23-22	501	Drilling
Pyramid Hills	Standard Oil Co., Well	1-6	21, 24-18		Rigging up
	Madera County				
Gill Ranch	The Texas Co., Gill	725-19	19; 13-16	4489	Completed
	The Texas Co., Gill	525-17	17, 13-16		Location
	San Luis Obispo County				
W. Midway	Richfield Oil Corp., Temblor Hills	1-1	36, 31-21	3907	Drilling

wells to be drilled on the east side of the San Joaquin valley. Approximately two miles west from the southerly end of the Mount Poso field, location is being graded for Fitzhugh No. 1, 300 ft. south and 673 ft. east from the north ¼ corner of section 32-27s-28e. While in the Shark Tooth area, location for Barlow No. 1, has been staked, 200 ft. north and 500 ft. east from the west ¼ corner of the northwest ¼ of section 24-28s-28e. Sands of the Vaqueros formation will be tested in both wells.

Standard Abandons Maricopa Deep Test

Approximately one mile northeast from the town of Maricopa, the Standard Oil Co. has abandoned Ethel D. S. No. 1. Proposed super deep test well, the hole was drilled only to the depth of 8647 ft. There were no showings of any commercial value found below the known producing horizons of the area. The hole was bottomed in brown shale of Miocene age which is the only information the operator has released on the lower portion of the hole.

Cantua Creek "Cat" Testing

In the Cantua Creek area of Fresno county, the joint test of the Seaboard Oil Co. and the Pure Oil Co. is drilling ahead in hard sand below 5600 ft. after making tests of gas shows up the hole. The first test, made of the interval 5060 ft. to 5267 ft. showed a blow of gas estimated at 1,000 MCF per day, with the recovery in the drill pipe consisting of mud and salt water. The second test, made of the interval 5510 ft. to 5540 ft. showed only a slight blow of air, with only a small amount of drilling fluid recovered in the drill pipe. Located in section 22-16s-13e, the hole is being spot cored ahead in hard shale with streaks of hard gray sand.

Deep Test in Shale

The Standard Oil Co. Standard-Fullerton No. 1, deep test well of the Semitropic gas field, is coring ahead in brown shale with streaks of gray sand below 11,100 ft. Located near the northwest corner of section 25-27s-23e, the well has shown considerable gas and has tried to blow out several times. A protective string of nine-inch casing was cemented at 9886 ft. to control this gas. However, the well still tries to blow out between the nine-inch and the 13⅜-inch casing which is cemented over the Mya gas sand at 2475 ft.

Carrington King

(Continued from Page 5)

through (accompanied by a certification from State Oil and Gas Supervisor Reed D. Bush), the price agency hopes to make the payments retroactive to the August 1 deadline.

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